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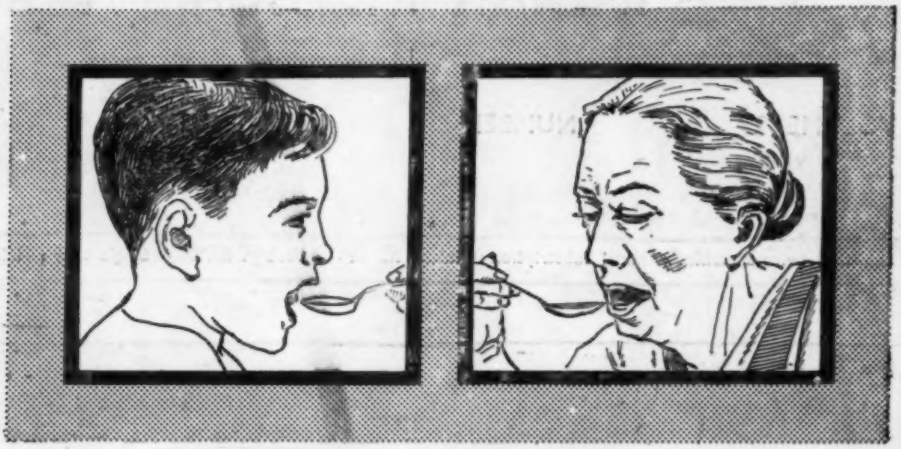

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TABLE OF CONTENTS

	Page
ORIGINAL ARTICLES :	
1. Psittacosis—S. Kaul and S. C. Datta ...	177
2. Significance of Tuberculin Sensitivity in Sick Children (A Preliminary Communication) —D. N. Chatterjee	180
3. Clinical Trial of a New Anti-amoebic Drug —S. C. Chatterjee, S. K. Biswas, J. C. Ghosh and S. T. Banerjee	183
4. Diethylaminocresol Dihydrochloride in Amoebiasis—L. R. Sarin and A. Dasgupta	186
5. Clinical Trial of a New Drug in Amoebic Dysentery—K. V. Krishnaswami and N. Vaidyanathan	187
6. A Study with a New Amoebicidal Drug —Banshidhar Basu Roy and Kalidas Nandy ...	191
CASE NOTE :	
Cardiac Arrest—Sarinder Man Singh ...	194
EDITORIALS :	
1. The General Practitioner and Cardiac Surgery	196
2. Disposal of Human Excreta	197
CURRENT MEDICAL LITERATURE	198
CURRENT TOPICS :	
1. Impressions of the First International Asian Conference on Occupational Health —Amritalal D. Daftary	202
2. V Annual Convention of the Bombay Branch of the Society for the Study of Industrial Medicine (India)	204
NOTES AND NEWS	205
CORRESPONDENCE	207
REVIEWS	208
OBITUARY	208
SUPPLEMENT :	
1. X Gujarat and Saurashtra Provincial Medical Conference, 1957, Junagadh	209
Branch Notes	213

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INDEX TO ADVERTISERS

	Page
Alembic Chemical Works Co. Ltd.	xvi, xxxv
Allen & Hanburys Ltd.	xi
Amarchand Sobachand	viii
Antiseptic	xiv
Aseptichs Co.	iv
Atlantis (Est) Limited	xviii
Bengal Chemical & Pharm. Works Ltd.	Front Cover
Bengal Immunity Co., Ltd.	xxviii
Burroughs Wellcome & Co. (I) Private Ltd.	xvii
Calcutta Chemical Co., Ltd.	Back Cover
Chemo-Pharma Laboratories Ltd.	xxxi
Cipla Ltd.	ix
Coates & Cooper, Ltd.	xii
Corn Products Co. (I) Private Ltd.	xiv
Dey's Medical Stores Private Ltd.	xx
Dumex Private Ltd. (East Asiatic Co. (I) Private Ltd.)	xxvi
Eastern Drug Co. Ltd.	ii
East India Pharmaceutical Works Ltd.	xxiv
Franco-Indian United Laboratories	xxiii
Geoffrey Manners & Co. Private Ltd	xxix
G. D. A. Chemicals Ltd.	xxxii
Glaxo Laboratories (I) Private Ltd.	vii
Himalaya Drug Co.	xxxi
Hind Chemicals Ltd.	xxxiii
Hindustan Lever Ltd.	x, xxxiv
Hoare Miller & Co. Ltd.	xviii
Indo-Pharma Pharmaceutical Works	iii
I. M. S. Laboratory	xxii
Indian Health Institute & Laboratory Ltd	xxxiii
John Wyeth & Brother Ltd.	xxxvi
Khandelwal Laboratories Private Ltd.	iv
Lederal Laboratories (I) Private Ltd.	i
Macmillan & Co. Ltd.	viii
Mandoss Drugs Ltd.	viii
Martin & Harris Private Ltd.	xii
Navaratna Pharmaceutical Laboratories	xxxiii
Neo-Pharma Private Ltd.	v, xxvii
Nestle's Products (I) Ltd.	xxi
Nettlefolds of India Private Ltd.	vi
Oralin Laboratories	iv
Pfizer Eastern Corporation (Ravison Pharmaceuticals Private Ltd.)	2nd Cover
Popular Book Depot	iv
Ranbaxy & Co., Private Ltd.	xv, xxii
Raptakos, Brett & Co. Private Ltd.	xxi
Ravison Drugs Private Ltd.	xix
Sanitex Chemical Industries Ltd.	xxxii
Scientific Publication Concern	viii
Stadmed Private Ltd.	vi
Unichem Laboratories	xxviii
VEB Carl Zeiss JENA (Gordhandas Desai Private Ltd.)	iv
Voltas Ltd.	xxv, xxx
W. T. Suren & Co. Private Ltd.	xiii

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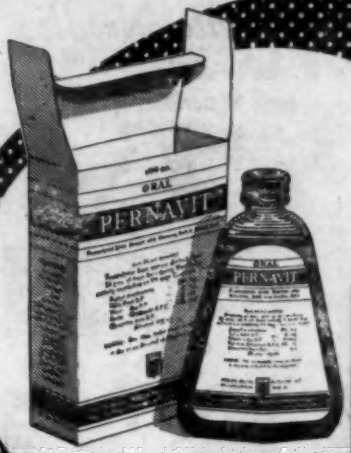

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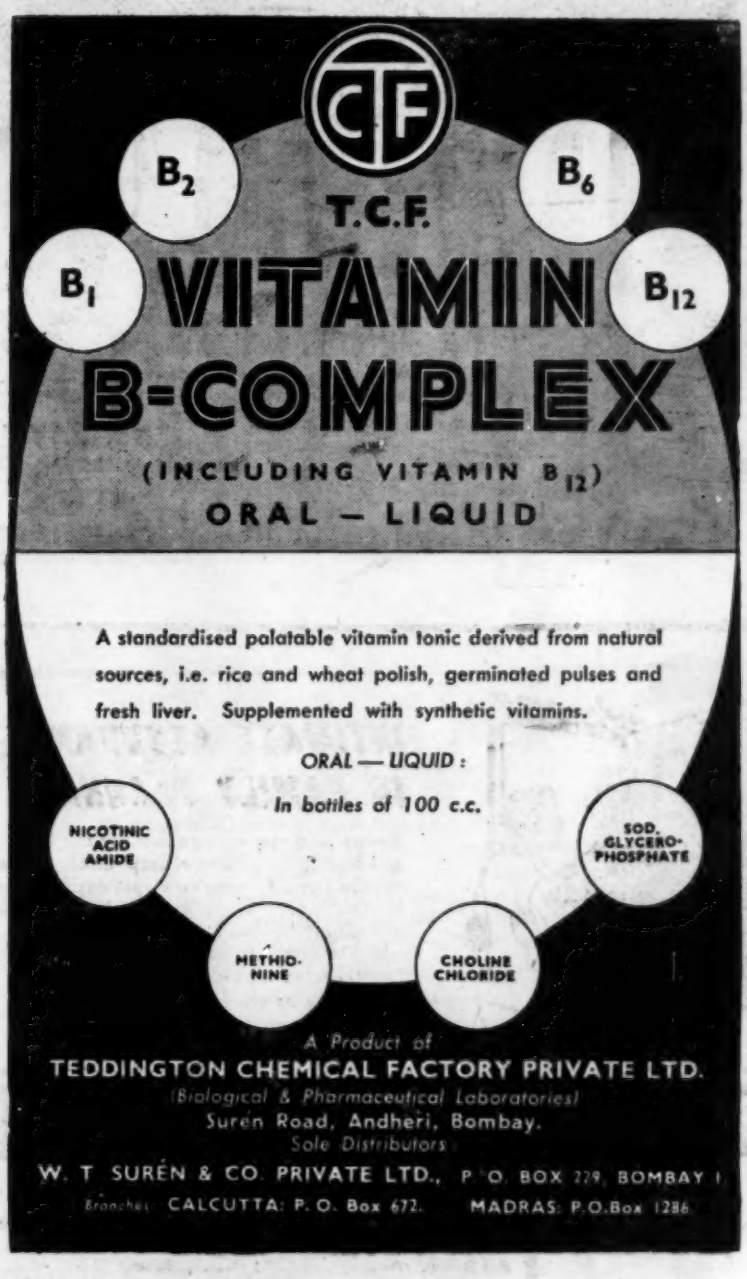
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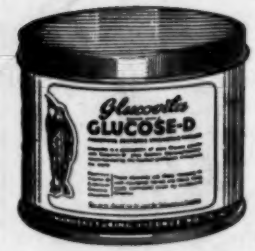

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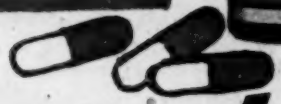

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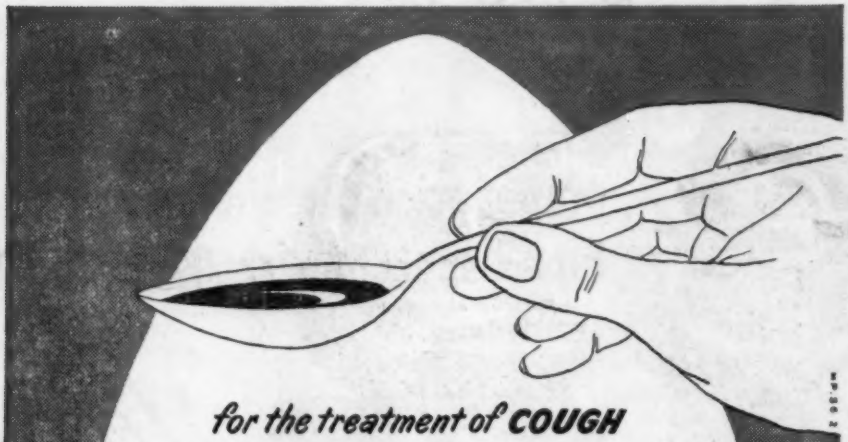

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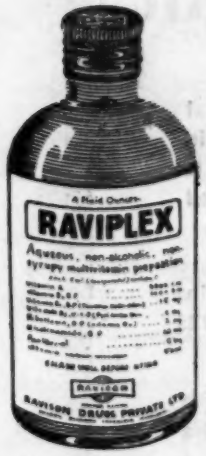

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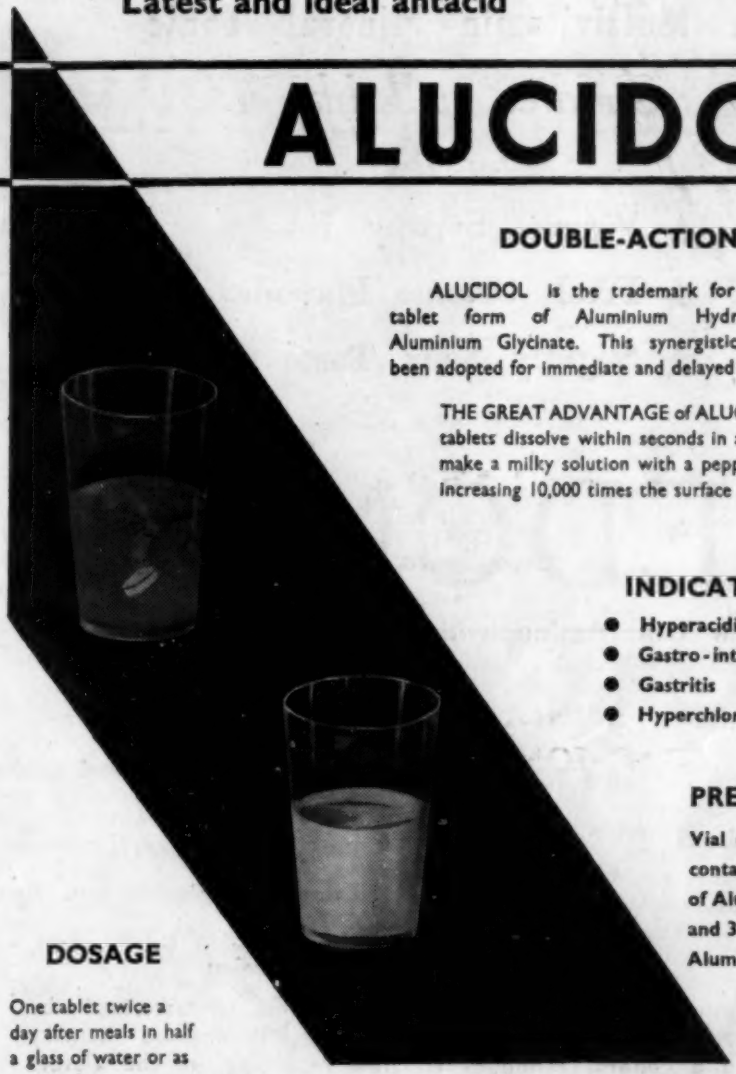

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EDITOR—P. K. GUHA, M.B., M.R.C.S. (ENG.), D.O.M.S. (LOND.)

ORIGINAL ARTICLES

PSITTACOSIS

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Psittacosis, as the name implies, is primarily a disease of psittacine birds like parrots and parroquets. It is almost identical with ornithosis, a disease of pigeons. The infective organism, clinical features and host susceptibility are so identical, that the term psittacosis-ornithosis has been used for the group. Many epidemics amongst such birds have been described all over the world. It was, however, realised comparatively recently that the disease could infect other wild birds, like canaries, pigeons and fulmars as well as poultry birds, such as domesticated pigeons and fowl.

Human infection occurs from contact with infected birds. Sometimes such contact may produce quite extensive epidemics like the one which occurred in Faroes Island in the year 1938 (Bedson, 1955). Sporadic and epidemic human infection has been reported from many countries but its occurrence has not, to our knowledge, been so far reported from India.

We had the opportunity of studying in detail a proved case of psittacosis. A report of the case is presented as being of general interest.

CASE REPORT

Sub R. N., aged 45 years with a service in the Army of 13½ years was received at Military Hospital, Poona, on 1-8-1956 with a history of fever, dry cough, severe headache and pain all over the body which started on 27-7-1956. The cough started first and was accompanied by pleuritic type of pain over the right lower chest. Towards the same evening his temperature was 99·8°F. Later at night he started having headache which steadily increased during the next few days. The chest pain subsided during the next three days, his cough became slightly productive and he brought out some mucoid sputum.

His was an old case of mild uncomplicated hypertension for which he was under observation for the past two years. He gave no history of any lymphnode enlargement or suggestive symptoms of lymphopathia venereum. He had his protective inoculations against TAB six months before admission.

On questioning, he stated that his colleague, living in the same room as his, was keeping some chicken and that these chicken used to roam around inside the living quarters, often fouling the place with their droppings. The living quarters were near the mess kitchen where, from time to time, poultry was brought for consumption. Such birds would come in contact with the ones kept by his associate. To his knowledge there were no deaths amongst the poultry birds in the area. No pigeons or parrots were noticed by the patient in the vicinity of his quarters during the summer season.

On examination at this hospital he was found to have a temperature of 103°F, pulse rate of 110 per minute and respiratory rate of 24 per minute. His face was suffused and eyes congested. His tongue was dirty white over the centre, the edges and tip being rather red. He had no rash. Apart from a few medium rhonchi and crepitations and a slight impairment of the

percussion note over the right lower lobe, no abnormality was found in the respiratory system. The spleen and the liver were not palpable. Blood pressure was 150/100 mm. Hg, otherwise the cardiovascular system was normal.

While in the hospital he continued to run a remittent type of fever.

Laboratory investigations—Routine urine examination carried out on 2-8-56, 20-8-56 and 21-8-56 showed no abnormality and culture on 3-8-56 was sterile. After that a few pus cells and various micro-organisms, considered to be contaminants, were grown. Urine examined subsequently on 9-11-56 showed no abnormality.

On 1-8-56, blood examination showed: W.B.C.—12,200 per c.mm. and polymorphs 9,760 per c.mm. Peripheral blood films showed no haemoparasites. Blood cultures on 1-8-56, 10-8-56, 18-8-56 and 3-9-56 were sterile. Urine and stools repeatedly cultured during the third week of fever did not show enteric group of organisms. Sputum smears and cultures on several occasions showed mixed flora or saprophytic organism but no pneumococci.

Results of Widal, Weil-Felix and agglutination against brucella are shown in Table 1.

TABLE 1—RESULTS OF WIDAL AND WEIL-FELIX TESTS AND AGGLUTINATION TEST AGAINST BRUCELLA ON DIFFERENT DATES

	2-8-56	10-8-56	18-8-56	3-9-56	8-9-56	14-9-56
B. typhosum (O) ..	20	Nil	20	20	80	20
B. paratyphosum A ..	Nil	Nil	Nil	Nil	Nil	Nil
B. paratyphosum B ..	Nil	Nil	20	Nil	40	Nil
B. paratyphosum C ..	Nil	Nil	Nil	Nil	Nil	Nil
B. proteus OX 2 ..	50	Nil	Nil	Nil	Nil	Nil
B. proteus OX 19 ..	Nil	Nil	Nil	Nil	Nil	Nil
B. proteus OX K .	50	50	50	50	50	Nil
Brucella ..	Nil	Nil	Nil	Nil	Nil	Nil

Tests for cold agglutinins and agglutinins against streptococcus M.G. which were negative on 8-8-56 and again on 19-8-56, were discontinued later as they did not show any rise in titre at this interval of eleven days.

Complement fixation test for Q fever was negative on 8-8-56, 14-8-56 and 19-8-56. HAI for influenza was done on 8-8-56, 14-8-56, 17-8-56 and 19-8-56 and the titre did not go above 1 in 32 on any occasion.

Results of complement fixation test for psittacosis-lymphopathia antigen are shown in Table 2.

TABLE 2—COMPLEMENT FIXATION TEST WITH PSITTACOSIS LYMPHOPATHIA ANTIGEN

Day of disease	Dilution of 1 in					
	8	16	32	64	128	256
12th Day ..	2	trace	—	—	—	—
18th Day ...	3	1	—	—	—	—
21st Day ...	4	2	1	—	—	—
26th Day ...	4	4	2	1	—	—
32nd Day ...	4	4	3	1	trace	—
41st Day ...	4	4	3	2	1	—
46th Day ...	4	4	3	1	—	—
69th Day ...	4	3	2	1	—	—
103rd Day ...	—	—	—	—	—	—

N.B. 4=No haemolysis. Trace, 1, 2 and 3 =Different degrees of haemolysis.

X-ray reports were as under:

2-8-56—A non-homogenous opacity in the right lower zone obliterating the right cardiophrenic region. The shadow is continuous with that of the right hilum.

14-8-56—Evidence of progressive resolution of the opacity at the right base. The periphery of this opacity is clearer compared to the film taken on 2-8-56; details of the right hilar region are better visualised.

23-8-56—The right base showed further resolution of the opacity.

31-8-56—The right lung base had very much cleared but residual opacity was still seen near the right cardiophrenic angle. Lateral view shows the opacity localised mainly to the posterior basal segment of the right lower lobe. Resolution was delayed and incomplete.

N.B.—The opacity gradually cleared up before the discharge of the patient.

Treatment—On admission the patient was put on procaine penicillin and sulphamezathin but showed no response to this treatment. On 8-8-56 he was placed on a course of chlortetracycline 2 g. per day in divided doses. There was a prompt response and the temperature came down to normal within 36 hours. The dosage of chlortetracycline was reduced to 1 g. per day from the 13th morning. On the 13th evening the temperature again went up and the patient had a relapse of all the symptoms. Thereafter the temperature and the symptoms continued inspite of continuation of the antibiotic until 17-8-56. On the same day the case was again reviewed. The patient was then complaining of intense headache and backache. He had a distressing cough with very scanty mucoid expectoration but had no chest pain. For the previous two days he had been having repeated rigors. Clinically his general condition was satisfactory. His temperature was 104°F, pulse was 84 per minute and respiration 24 per minute. His face was flushed and eyes congested. Lungs showed bilateral catarrhal signs. The spleen was now palpable one inch below the costal margin but soft. He also had a generalised urticarial

rash, a slight swelling over the eyelids and one small haemorrhagic spot over the soft palate. As his temperature was persisting it was decided to stop chlortetracycline and put him on symptomatic treatment for his fever, other complaints and urticaria and keep the patient under observation before embarking on any other form of specific therapy. On the 19th afternoon the temperature touched normal and finally settled down on 21-8-56. (Fig. 1). His general condition also improved and his

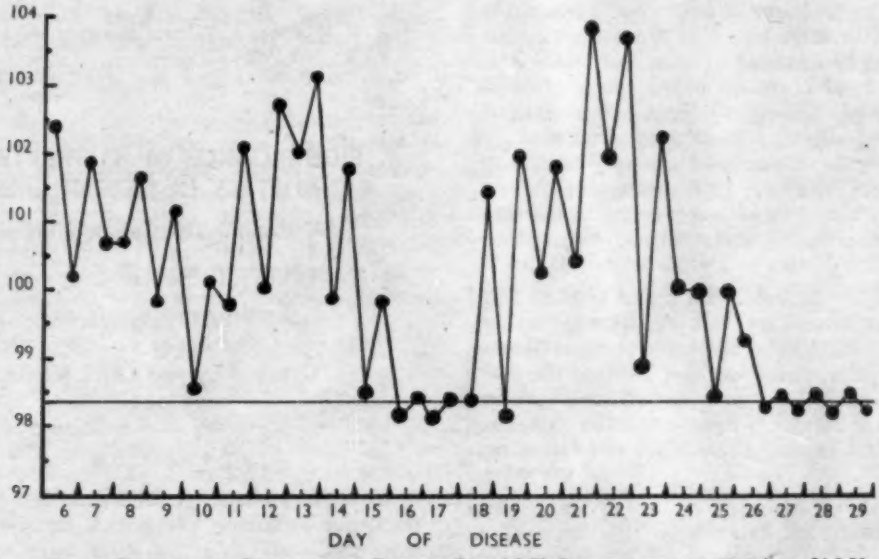

FIG. 1—TEMPERATURE CHART OF THE PATIENT FROM 1-8-56 (THE DAY OF ADMISSION) TO 24-8-56.

other symptoms quickly subsided. His lungs cleared up gradually and he was discharged from the hospital on 16-10-56 as cured of his infection.

COMMENTS

Psittacosis is a relatively rare disease which manifests itself as a pyrexia of uncertain origin or as an atypical pneumonia. When patients with these clinical syndromes are subjected to systematic study, epidemic or isolated cases of the disease may be encountered. The confirmation of the diagnosis depends on isolation of the organism or demonstration of a distinct rise in the antibody titre against the psittacosis-lymphogranuloma group of organisms in blood during the course of the illness. It must, however, be stressed that this rising titre, like other laboratory tests, cannot by itself be accepted as positive proof of the existence of the disease. In the absence of a compatible clinical condition it would obviously be wrong to accept a diagnosis on such evidence alone. This point has also been stressed by Crofton *et al* (1950) in their report on the results of investigation of respiratory viruses.

The viruses of psittacosis-ornithosis and lymphopathia venereum are antigenically very closely related if not identical so that apart from other considerations a recent or past infection with the latter may itself give false positive results.

In our patient the clinical condition was that of a pyrexia of uncertain origin. The severe headache, early onset of respiratory symptoms, bradycardia and prolonged pyrexia could have been compatible with a diagnosis of enteric group of fevers. The enlargement of the spleen which was noticed as the pyrexia continued would have lent support to the diagnosis. Enteric is, however, uncommon in the inoculated communities living under comparatively better hygienic conditions obtainable in military units and messes. A few unusual clinical features like the early onset of pleuritic pain, the presence of signs of lung involvement localised to one area, raised a suspicion early that we were not here dealing with a straightforward case of pyrexia of unknown origin or enteric. No specific therapy for enteric was, therefore, instituted in the early stages of the disease. Skiagram of the chest taken on 2-8-56 showed a characteristic appearance and thus the clinical impression of an atypical pneumonia was confirmed. Appropriate laboratory studies undertaken in the Armed Forces Medical College, Pathology Department, finally confirmed the nature of the infection. The frequent occurrence of chills and rigors in the latter part of the illness

in the absence of any complications is a notable feature and has been brought out by many observers.

Parrots and parroquets are quite commonly seen during the summer months in Poona. Pigeons, both wild and domesticated, are also common, but our patient does not appear to have come in contact with any of these birds before his illness. He was, however, in very intimate contact with the fowl and he may have contracted the infection from these birds. It is not known if any of these birds sickened or died but poultry diseases are quite common and in most cases unrecognised particularly in birds supplied to the messes for consumption. We do not know whether a study of this disease amongst the poultry birds in India has ever been conducted. A study of this sort would be as much useful to the medical profession as to those interested in poultry breeding.

It is highly desirable that a look out should be kept for the existence of this condition particularly amongst patients showing rather atypical features of enteric fever, and those that fall into the broad group of 'atypical pneumonias'' or "primary atypical pneumonias.' It may then be recognised that this and similar diseases are not rare in our country.

We wish to comment on two other features in this case. First the relapse that occurred in this patient while on 1 g. of chlortetracycline (aureomycin) a day. It is likely that if a higher dosage of the antibiotic had been reinstituted the relapse would have been controlled. The fever and other symptoms, however, promptly subsided when the specific therapy was tentatively stopped.

The second point is the occurrence of an extensive urticarial rash with oedema of the lid margins. It is unlikely that this was related to the infection but may have been an allergic manifestation to one of the drugs that was given. As has been mentioned, the patient had procaine penicillin and sulphamezathin from 1-8-56 to 7-8-56 and the rash appeared on 16-8-56, i.e., nine days after the last dose of these drugs was administered. The patient had sulphas and penicillin before without any apparent reactions. The sensitivity to the various drugs has not been tested but will be undertaken in due course.

Summary

No case of this disease has so far been reported from India. Case notes of a patient with this condition, who came under our observation are recorded.

Acknowledgments

We wish to thank D.M.S. (Army) and O.C.M.H., Poona, for permission to publish this case.

We gratefully acknowledge the help of the various sections of the Pathology Department, A.F.M.C., and the Radiology Department, M.H. Poona in the investigation of this patient.

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SIGNIFICANCE OF TUBERCULIN SENSITIVITY IN SICK CHILDREN

(A Preliminary Communication)

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Introduction

There is probably no biological test in paediatrics, not excluding the Schick test which is of more practical value than tuberculin test. It is more so in sick children, for not only in a large percentage of cases it is the only reliable method in detecting unsuspected tuberculous infection, but a negative reaction, if properly carried out (except in a few rare instances) weighs heavily against a diagnosis of tuberculosis. The only difficulty arises when evaluating the significance of a positive reaction. The incidence of active disease among positive reactors is not constant. Not only does it vary in different ages and in different countries, it also varies between villages and towns, and from town to town in the same country. As the incidence of infection (apart from other factors) depends on the number of active cases in the community, certainly poverty, malnutrition and repeated attacks of acute infectious diseases in overcrowded and unhygienic surroundings, by lowering the resistance of children, determine the number of active cases amongst the positive reactors.

So to attach significance to a positive reaction in a child, in a certain locality, the 'tuberculin status' of different age groups in that particular locality will have to be determined and assessed from time to time.

In 1947, while working in the Chittaranjan Sishu Sadan it appeared that a large number of cases were being labelled as 'marasmus', in many of whom, the aetiology was far from certain, even after careful history taking and routine clinical and laboratory investigations at our disposal. In two such cases postmortem examination revealed miliary tuberculosis.

Undoubtedly routine skiagraphy in this type of cases would exclude tuberculous disease of the lungs. But due to shortage of film and also considering the cost of such routine skiagraphy, some method of screening had to be thought of to reduce skiagraphy to the possible minimum. It was decided to do 'tuberculin test' in these patients. The work was started with a few available strips of 'volmer patch test' material. Shortly 'old tuberculin' was used for doing Mantoux test. Gradually we extended the test to cases, other than 'marasmus', and in January, 1949 the test was introduced as a routine for all patients admitted to the hospital.

Material and Method

The present paper is based on Mantoux test done on all indoor patients in the hospital, who stayed for more than a week, between January 1949 and March 1951 and between April 1952 and March 1954.

The following patients were excluded from the present analysis:

1. Those who expired within 72 hours of the last strength of test dose (previous ones being negative).
2. Those who were taken away from the hospital before 1:1000 strength could be injected and read (previous strengths being negative).
3. Those who gave positive reaction on any previous occasion.
4. Those who had previous B.C.G. inoculation.

After exclusion the total number of cases tested during the period was 1882.

For each case admitted, a carefully noted proforma was kept.

Dilutions of different strengths of tuberculin were prepared every week with normal saline and kept in cold storage. All possible care to prevent contamination was taken. Every time after use the syringes and bottles were autoclaved.

Injections of different strengths were given every 4th day in alternate forearm, in the following order (the preceding strength being negative) till 1:1000 dilution was given.

1st injection—1 in 100,000—0·1 c.c. (right forearm)
2nd injection—1 in 10,000—0·1 c.c. (left forearm)
3rd injection—1 in 1,000—0·1 c.c. (right forearm)

Each injection was given in the flexor surface of the forearm, after it was thoroughly cleansed with ether to make it greasefree and every care was taken to give a truly intradermal injection. Care was also taken to see that there was no leakage from the tuberculin syringe, and different syringes were kept marked for different strengths of the solution.

Readings were taken 48 and 72 hours after the injection. Only definite induration which persisted after 72 hours with at least one diameter 6 millimeters or more was considered as positive, and measured in millimeter and recorded.

For determination of activity amongst positive reactors the following were taken into consideration.

1. Skiagraphy.
2. Isolation of tubercle bacilli in some cases.
3. Histological examination of lymph node in some cases.
4. Postmortem evidences in a few cases.
5. Clinical features, high E.S.R. in the absence of any detectable disease, failure to respond to drugs other than specific antituberculous ones (especially INH and PAS) were also taken into consideration. This was particularly so in some cases of abdominal tuberculosis without ascites and which failed to show evidence of active tuberculosis in skiagraphy of the chest.

Analysis of Results and Discussion

The results obtained from the study appear significant and as my limited search did not reveal similar type of study in sick children in our country, the results have been compared with those of Ounsted and Smallpiece (1951).

Table 1 shows the positive reactors in each 2 year age group, with percentage of activity amongst the positive reactors.

Table 2 shows the positive reactors, in term of three age groups, 0-3 years, 3-7 years and 7-12 years. This has been done to compare with the three groups of Ounsted's cases (Table 3).

Analysis of Table 1 shows that starting from 10·12 per cent in the lowest age group the percentage of positive reactors has steadily increased to reach the maximum of 50 in the group 10-12 years. If we compare the figures with those of

TABLE 1—SHOWING ANALYSIS BASED ON 2 YEAR AGE GROUP

Age in years	Total No. tested	No. negative	No. positive	% positive	Positive with active tuberculosis	% active of positive	% of active tuberculosis amongst tested
0—2	928	834	94	10·12	92	97·87	9·91
2—4	340	252	88	25·88	77	87·50	22·64
4—6	210	150	60	28·57	47	78·33	22·38
6—8	190	120	70	36·84	36	51·42	18·94
8—10	138	72	66	47·82	15	22·72	10·86
10—12	76	38	38	50·00	15	39·47	19·73
	1882	1466	416		282		

TABLE 2—SHOWING ANALYSIS BASED ON THREE AGE GROUPS (0—3, 3—7 AND 7—12 YEARS)

Age in years	Total No. tested	No. negative	No. positive	% positive	Positive with active tuberculosis	% active of positive	% of active tuberculosis amongst tested
0—3	1128	988	140	12·41	133	95·00	11·79
3—7	448	318	130	29·01	104	80·00	23·21
7—12	306	160	146	47·71	45	30·82	14·70
	1882	1466	416		282		

TABLE 3—SHOWING FIGURES OF OUNSTED AND SMALLPIECE (1951)

Age in years	Total No. tested	No. negative	No. positive	% positive	Positive with active tuberculosis	% active of all positive
0—3	271	251	20	7·3	17	85·0
3—7	256	209	47	18·3	38	80·0
7—14	270	198	72	26·6	20	27·9
	797	658	139		75	

Ounsted it is found that in each 2 year age group in our cases the percentage of positive reactors is considerably higher, roughly about double on an average, i.e., in any age group, the infectivity rate in our area is about twice.

On analysing the cases showing activity amongst positive reactors it will be found that in our cases starting from the highest percentage 97·87 in the lowest age group 0-2 years, it has steadily declined to a minimum of 22·72 in the age group 8-10 years, after which there is again some rise in percentage of active cases in the age group 10-12 years (Table 1).

Under the age of 2 years only 2 cases out of 94 positive reactors failed to show activity and both of these two cases were between 1½—2 years at the time of testing. On enquiry, it was revealed that both of them had undergone treatment outside during several months before admission, for what was stated as 'recurrent bronchitis' and for which anti-tuberculous drugs were used freely. Both showed calcifying lesion in the hilar area, but no clinical activity. Had these cases not been treated, it is very likely that they would have shown some activity at the time of test in the hospital. With this reservation really 100 per cent of the positive reactors under the age of 2 years had active tuberculosis.

Further as we follow the upper age group it will be seen that though the infectivity rate has steadily increased, with rise in age, the percentage of active cases amongst those positive has steadily fallen, i.e., along with increase in the percentage of infectivity, there has been a steady increase in the percentage of 'silent conversion'. Even then the percentage of highest silent conversion (in the age group 8-10) does not exceed 25·10 among positive reactors in our cases. Ounsted has shown maximum 'silent conversion' of 27 per cent, reached in the age group 12-14 (which age group we could not test, as 12 years is the maximum age for admission in our hospital).

In the age group 10-12 years in our cases there is evidence of higher percentage of active cases amongst positive reactors, compared to the lower age group 8-10 years, which is contrary to expectation. This is also evident in Ounsted's cases, for which they have not given any explanation. In our cases this can possibly be explained by the presence of a large number of post primary (adult type) of cases in this age group, most of whom had already undergone 'silent conversion' at an earlier date as a result of their primary infection.

From a comparison of Tables 2 and 3 it will be found that in our cases under the age of 3 years, 12·41 per cent showed positive reaction, and as high as 95 per cent of the reactors showed active disease, compared to corresponding figures of 7·3 per cent and 85 per cent in Ounsted's cases.

In the age group 3-7 years, though the percentage of 'silent conversion' increased in our cases, even then 80 per cent of the positive reactors showed activity against Ounsted's figure of 81 per cent.

Thus out of all 270 positive reactors under 7 years in our cases, 237 i.e. about 84·07 per cent showed active disease and Ounsted's corresponding figure is 82·08 per cent. Thus more than 80 per cent of all positive reactors under 7 years showed active disease both in our and Ounsted's cases. The source of infection in these smaller children are usually from home (which is also supported from history of contact in our cases) and probably most of them had been heavily infected.

After 7 years of age there is a sudden change in the state of affairs. Thus though the percentage of positive reactors is much higher, out of 146 positive reactors only 45, i.e., about 30·82 per cent showed active disease. In Ounsted's cases of the positive reactors between 7-14 years, activity was shown by about 28 per cent.

It is thus clearly seen that the age 7 years is not only important from the point of view of the number of infected children above and below this age, but is very important because a very high percentage, about 85 per cent of those infected below this age, is suffering from active disease.

The value of positive reaction in older children is usually underestimated, there being a common belief, that all older children have a positive reaction. Our finding, however, shows that between 7 and 12 years only 47·7 per cent, i.e., less than half showed positive reaction and of the positive about 30·82 per cent showed active disease. Ounsted's corresponding figures are 26·6 and 27·9.

SUMMARY

Routine Mantoux tests were done in 1882 unselected sick children upto the age of 12 years.

In any age group under 12 years, in our area, the percentage of sick children, infected with tuberculosis, is roughly about double that in some areas in England.

That under 3 years about 95 per cent of infected children have active tuberculosis and under 7 years it is still about 85 per cent.

ACKNOWLEDGMENTS

I can never cease to remain grateful to Dr. M. L. Biswas who not only took keen interest and gave me his valuable suggestions and encouragement throughout the work, but actually procured for me the first bottle of old tuberculin with great difficulty at the beginning of the work. I extend my sincere thanks to Dr. S. Roy, Pathologist, Calcutta Police Hospital, who successfully cultured tubercle bacilli in many of my cases. My thanks are also due to all the medical and nursing staff of the hospital who have co-operated with me throughout.

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REFERENCE

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CLINICAL TRIAL OF A NEW ANTI-AMOEBIC DRUG

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6,6′-diallyl-a,a′-bis (diethylamino)-4,4′bi-o-cresol dihydrochloride is a synthetic organic basic bisphenol compound, issued under the proprietary name camoform, and claims to possess a marked

TABLE 1—SHOWING DETAILS OF THE CASES STUDIED

Case No.	Age in yrs.	Symptomatology	E. histolytica in stool		Sigmoidoscopy		Dosage
			Before treatment	After treatment	Before treatment	After treaement	
			GROUP A				
1	34	Frequent passage of loose stool with mucus for 5 years. Liver—enlarged and tender. Caecum and sigmoid—thickened and tender.	Cyst present	Nil	Mucosa congested. Polypoid overgrowth of mucosa. Plenty of irregular, flat, undermined ulcers present. Scrapings —vegetative form of *E. histolytica*	Ulcers diminished and congestion improved. Scraping showed vegetative form of *E. histolytica*. Sigmoidoscopy repeated after 7 days—no *E. histolytica* found	40 mg. per kg. of body wt. per day. Total : 56 tablets.
2	45	Frequent passage of loose stool with blood and mucus for 6 years. Liver—enlarged and tender. Caecum and sigmoid—thickened and tender.	Cyst and vegetative form present	Cyst present	Mucosa congested. Several irregular undermined ulcers. Scrapings —vegetative form of *E. histolytica*	Congestion much improved. Ulcers diminished considerably. Scrapings —vegetative form of *E. histolytica* persisting	40 mg. per kg. of body wt. per day. Total : 56 tablets.
3	33	Loose motion with blood and mucus. Colon—thickened and tender.	Nil	Nil	Mucosa congested. Numerous irregular, undermined ulcers, some bleeding. Scrapings—vegetative form of *E. histolytica*	Ulcers diminished considerably. Scrapings—no *E. histolytica*	40 mg. per kg. of body wt. per day. Total : 56 tablets.
4	24	Loose stool with blood and mucus. Sigmoid—thickened and tender.	Nil	Nil	Mucosa congested. Several irregular, undermined ulcers surrounded by areas of congestion. Scrapings —vegetative form of *E. histolytica*	Congestion disappeared. Ulcers healed up. Scrapings—no *E. histolytica*	40 mg. per kg of body wt. per day. Total : 56 tablets.
			GROUP B				
5	35	Griping pain in abdomen with occasional diarrhoea. Liver – enlarged and tender	Cyst present	Nil	Mucosa congested and studded with small pitted ulcers. Scrapings—vegetative form of *E. histolytica*	Ulcers completely healed up. Scrapings—no *E. histolytica*	30 mg. per kg. of body wt. per day. Total : 42 tablets.
6	20	Periumbilical pain with occasional diarrhoea	Cyst present	Nil	Mucosa congested. Several pin point ulcers present. Scrapings —vegetative form of *E. histolytica*.	Ulcers healed completely. Scrapings—no vegetative form of *E. histolytica*	30 mg. per kg. of body wt. per day. Total : 42 tablets.

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amoebicidal activity. The drug is administered orally and is effective in colonic and extracolonic amoebic lesions.

Material and Method

Six cases of amoebiasis with ulcers in the lower part of the sigmoid colon and rectum were treated in Chittaranjan Hospital, Calcutta, with camoform. Only those cases showing definite ulcers, were selected for better assessment of the progress of lesions within a short period. All these patients had been admitted and kept in the inpatient department till investigations were complete. Patients were young adult males having dysenteric symptoms or diarrhoea with thickened and tender colon, with or without enlarged and tender liver. Diagnosis was confirmed by repeated examinations of stool for *Entamoeba hystolytica* and direct examination for amoebic ulcers with the sigmoidoscope and examination of the materials taken from the ulcers under direct vision. All the cases selected showed trophic form of *Entamoeba histolytica* either in the stool or in the scraping taken from the ulcers. Cases were followed up clinically for about three months, by repeated stool examinations. Sigmoidoscopic check up was done as a routine after one week and a fortnight from the completion of treatment. Routine examinations of blood and urine, liver function tests and estimation of blood proteins of all these cases did not show any definite abnormality.

Patients were divided into two groups according to the acuteness of symptoms and sigmoidoscopic findings. Patients having frequent loose motions with blood and mucus with many bleeding ulcers showing amoebae, were labelled as group A. Group B patients had chronic symptoms, e.g., occasional diarrhoea, abdominal pain and a few ulcers.

Group A patients were given 40 mg. of camoform per kg. of body weight daily in 4 divided doses half an hour after meals, and group B patients received 30 mg. per kg. of body weight daily in 3 divided doses half an hour after meals. The course was continued for a period of seven days. Group A patients received 8 tablets of camoform (250 mg. each) and group B patients received 6 tablets daily on an average (Table 1).

Side-effects—All the patients were carefully watched for side-effects like nausea, vomiting, anorexia, diarrhoea, headache and allergic reaction specially of the skin. The drug was practically nontoxic.

Results

In this small series a fairly satisfactory response to the new drug had been found. There was quick amelioration of symptoms in most of the cases within 3 days. Stool became formed, with relief of griping pain. Stool examination done after one week did not reveal any *Entamoeba histolytica* except in Cases 1 and 2. Sigmoidoscopy at that time showed some improvement of the mucosal lesions, but all the cases showed some ulceration still then. Sigmoidoscopy done after a fortnight showed a striking improvement of ulceration in all the patients (except Case 2). The intestinal wall became healthy and there was no congestion. Case 2 showed *E. histolytica* (cyst) in the stool and the scraping taken from the ulcers showed trophic forms. Case 1 though it did not show ulceration at that time, showed trophic form of *E. histolytica* in the stool presumably due to presence of some ulcer beyond the reach of the sigmoidoscope. Case 2 was treated with emetine and enteroquinol, while Case 1 was kept under observation for two weeks without administration of any other drug as the patient had no symptoms. Both the cases were cured. So it can be assumed that the drug gives a good result in most cases, though at times improvement may be delayed (Case 1). In the three patients, clinically the liver was enlarged and tender, and at the end of the course all of them showed marked improvement of the hepatic condition as manifested by reduction in size and diminution of tenderness. Colonic thickening and tenderness remarkably improved in all the cases.

Summary

Camoform, a new synthetic organic compound, was tried in six cases of active colonic amoebiasis with fairly satisfactory results. The drug is practically without any toxic effect, and effective orally. At present it is fairly costly, and a single course of therapy consisting of a dose of 40 mg. per kg. of body weight daily for 7 days seems to be more effective.

Acknowledgments

We express our gratitude to Dr. M. N. Sarkar, Superintendent, Chittaranjan Hospital, Calcutta, for allowing us to have a trial of this new drug on the patients of the Chittaranjan Hospital and to publish the results. Thanks are due to Messrs. Parke Davis & Co. Ltd. for supplying the drug free of cost. We also thank Drs. M. Mukherjee, S. De and D. Chakravarty for their constant day-to-day supervision of the cases under trial.

DIETHYLAMINOCRESOL DIHYDROCHLORIDE IN AMOEBIASIS

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A wide variety of drugs have been used for the treatment of amoebiasis and each year a new drug is being added to the list.

Emetine effectively controls the symptoms of amoebic dysentery and amoebic hepatitis but is less effective in chronic amoebiasis.

Among the halogenated hydroxyquinoline compounds, diodoquin has a relapse rate of 33 per cent (Morton, 1945).

Of the arsenical preparations, carbarsone has proved to be very valuable in resistant cyst passing cases of amoebiasis, although it is apt to produce on occasions gastro-intestinal upsets and dermatitis. Bismuth-glycolylarsanilate because of relative insolubility is effective as high concentration of the drug is possible in the gut and the claims of rate of cure vary from 70-80 per cent (Anderson, 1953).

In recent years broad spectrum antibiotics have been used both in acute and chronic amoebiasis. Experimental work suggests that these are not truly amoebicidal because none of them destroy amoebas *in vitro*.

Camoform (P.A.A.—701, diallyl-diethylaminocresol dihydrochloride) is a synthetic compound. In low concentration it is amoebiostatic, and in adequate concentration it is amoebicidal.

Material and Methods

Twenty patients of amoebiasis including 17 males and 3 females were treated with camoform. Infection in these cases was confirmed by the presence of *E. histolytica* in the stool. Prior to the administration of the drug, necessary blood, urine and stool examinations were done. All the patients were hospitalised to assure better control. The series included 3 cases of acute amoebic dysentery and the remaining 17 cases showed vague symptoms, viz., abdominal discomfort after taking meals or actual pain in the region of caecum and descending colon and flatulence, loss of appetite, nausea, lethargy, giddiness, loss of weight, muscle-ache, mental irritability etc.

Sigmoidoscopic examination was done to find out any evidence of ulcer in the colonic and rectal region and scrapings from the ulcers were examined for the vegetative forms of the amoebae.

In all the patients, camoform was the only drug used. All the patients were given 250 mg. tablet three times a day after meals for a period of 7 days. Saline and iodine smear specimens of stool were examined on the 1st, 2nd, 4th and 6th day after administration of the drug for presence of *E. histolytica* and then bi-weekly for a period of one month. When ordinary saline and iodine smear examinations were found negative, salt floatation (zinc sulphate) technique of Craig and Faust (1948) was used to detect the presence of *E. histolytica* in the stool.

Results

Out of 20 cases, 3 cases of acute amoebic colitis responded well to treatment. The number of evacuations lessened after 24 hours and other symptoms like griping, tenesmus, pain in abdomen were relieved within a period of from 2 to 5 days after the commencement of the treatment. Complete clinical recovery of the patients was noticed within a week of administration of the drug. Microscopic examinations of the faeces gave negative results after a variable period of 4-15 days.

Out of other 17 cases twelve showed success and five failures. In the majority of the above series history of intake of amoebicidal drugs one time or other prior to the administration of camoform was present. In the successfully treated cases, there was clinical improvement. Flatulence, abdominal discomfort and pain in the caecal and ascending colon regions which, however, were noticed as early as the third day of the beginning of the treatment, disappeared after a week of administration of the drug. Disappearance of *E. histolytica* from the stool was very erratic and did not have any correlation with the relief of symptoms. The stools became negative at the end of 4 days of treatment in 2 and at the end of 1 week treatment in 4 out of 12 successfully treated cases. The rest of the 6 cases became negative after 7-18 days of treatment. All the successfully treated cases did not have any symptoms after the treatment, nor were the stools positive for *E. histolytica* even when they were followed up to a period of 2 months. The cases which did not respond to treatment did not show any relief of symptoms and *E. histolytica* in faecal specimens were seen microscopically at one time or other when they were followed up to the specified period.

There were some cases which showed side reactions. Giddiness and headache in two cases, abdominal pain in 2 cases and pruritus was observed in 3 cases. Only one case developed maculopapular type of dermatitis all over the body but it was more noticeable on the face, abdomen and back. This patient responded very well to cortisone therapy.

Discussion

So far no amoebicidal drug has been found which is efficacious in both acute and chronic forms of amoebiasis. Results obtained from camoform (250 mg. three times a day for 7 days) show that it is quite effective in controlling symptoms of acute colitis, but the results are not so hopeful in chronic cases of amoebiasis, which present themselves with vague clinical features. All the acute cases, who were given camoform had negative stool reports during the follow-up period of two months. The above result compares favourably with Barrios (1954) who treated 20 cases of acute amoebic dysentery with 0·5 g. dose, three times a day until examination of the stool showed absence of amoeba and sigmoidoscopic examination showed healing of the ulcers. His observations were that all of the patients were cleared of the infection and there were no relapses during a follow-up period varying from 1 to 7 months.

In our series of chronic cases, the results were not so satisfactory and the cure rate was 60 per cent compared to the almost cent per cent results obtained in the acute cases of amoebiasis. Similar results were obtained by Hoekenga and Batterton (1954) and Bustamante y Rivero (1954). We ascribe that one of the main reasons of the failure, apart from their poor nourishment, lowering of resistance, multiple infestation with several parasites, is due to the bacterial flora which undoubtedly play an important part in maintaining the infection as suggested by Hargreaves (1945).

Summary

Results of treatment of twenty cases of amoebiasis treated with 750 mg. of camoform a day for 7 days are given. Of these, 3 cases of acute amoebic colitis responded well. Out of 17 chronic cases 12 showed some improvement. The drug failed to have any effect on 5 cases.

Severe side reactions in the nature of pruritus and maculopapular dermatitis were noted.

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CLINICAL TRIAL OF A NEW DRUG IN AMOEBIC DYSENTERY

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Clinical trials in human amoebiasis have shown the effectiveness of the drug, camoform (Barrios, 1954 ; Hoekenga and Batterton, 1954 ; Bustamante y Rivero, 1954 ; de Mello and de Mello, 1955).

Camoform is at present supplied in 250 mg. compressed tablets. The dosage advised is 1 to 2 tablets thrice a day with meals for five days. Patients not cured with a single course should have a three week rest period before restarting treatment. Children should be given a correspondingly lower dosage.

Material and Method

Patients with amoebic dysentery with indisputable microscopic evidence alone were included for the clinical trial. Cases with extra-intestinal amoebiasis were not included in this series. During the course of the treatment daily stool examinations by both wet mount and iodine mount were done. Subsequently, whenever the patient presented himself, the stool was re-examined. Sigmoidoscopic examination was done only in a few cases.

All patients were hospitalised during treatment and were discharged, after three stool examinations on consecutive days were found negative for *E. histolytica*. They were also asked to come back for check up.

Initially during the trial only camoform was given. Those cases which failed to respond were given emetine hydrochloride parenterally. Later chlorostrep was given along with camoform with satisfactory results.

The progress of the patients, the dosage of camoform and the results are shown in Table 1.

TABLE 1—SHOWING PROGRESS OF THE CASES, DOSAGE OF CAMOFORM AND RESULTS

Case No.	Duration of dysentery	Dosage	Examination of stools before and after treatment						Symptomatic relief	Additional treatment	Remarks
			Number		Macroscopic		Microscopic				
			Before	After	Before	After	Before	After			
1.	7 days	0·25 g. t.d.s. for six days (4·5 g.)	18	6	Blood ++ Mucus ++	Blood ++ Mucus +	R.B.C. ++ Pus cells ++ Vegetative forms ++	R.B.C. + Pus cells + Vegetative form +	Nil	Emetine—5 gr. Sulphaguanidine—24 g.	Patient improved after sulphaguanidine.
2.	8 days	0·25 g. t.d.s. for ten days. 0·5 g. t.d.s. for five days (15 g.)	20	—	do.	Blood + Mucus +	R.B.C. ++ Pus cells ++ Vegetative forms ++	do.	Abdominal pain subsided completely	Emetine—3 gr.	...
3.	3 weeks	0·5 g. t.d.s. for 8 days (12 g.)	20	1	do.	Blood − Mucus −	R.B.C. ++ Pus cells ++ Vegetative forms + Cysts +	Nil	Pain and tenesmus subsided by 3 days	...	Patient showed considerable improvement in 3 days' time. After the full course he was completely free.
4.	3 weeks	0·25 g. t.d.s. for eight days (6 g.)	10	3	do.	do	do.	Nil	Pain and tenesmus relieved in three days	...	Improvement noted in four days.
5.	5 days	0·5 g. t.d.s. for 5 days (7·5 g.)	1	1	do.	do	do.	Nil	Pain and tenesmus relieved	Sulphaguanidine	Improvement.
6.	3 months	0·5 g. sixth hourly for 4 days (8 g.)	10	1	do.	do	R.B.C. ++ Pus cells ++ Cysts ++ Vegetative forms +	Nil	Marked improvement	...	Within 2 days marked improvement.
7.	3 months	0·5 g. sixth hourly for 5 days (10 g.)	15	15	do.	do	R.B.C. ++ Pus cells ++ Cysts ++ Vegetative forms ++	Nil	Nil	Emetine—6 gr. and Sulphaguanidine	...
8.	2 months	0·5 g. sixth hourly for 5 days (10 g.)	8	10	do.	do	do.	R.B.C. Pus cells Cysts Vegetative forms	Nil	do.	...

9.	4 months	0·25 g. sixth hourly for 5 days (5 g.)	6	1	Blood ++ Mucus ++	Blood − Mucus −	R.B.C. ++ Pus cells ++ Cysts ++ Vegetative forms ++	Nil	Pain and tenesmus completely relieved on 2nd day	Chlorostrep one capsule sixth hrly.	Sigmoidoscopy done on 5th day of treatment showed only a healing ulcer.
10.	4 days. Repeated attacks for 10 yrs.	0·5 g. sixth hourly first day followed by 0·25 g. sixth hourly for 4 days (6 g.)	6	1	do.	do	do.	Nil	do.	Chlorostrep one capsule sixth hrly. for 2 days	Sigmoidoscopy after completion of treatment showed healing ulcers.
11.	40 days	0·25 g. 6th hourly for 4 days (4 g.)	30	2	do.	do	do.	do.	Pain and tenesmus relieved	...	Sigmoidoscopy after treatment showed no ulceration.
12.	19 days	0·5 g. 6th hrly. for five days (10 g.)	10	5	do.	Blood + Mucus +	do.	Cysts	Nil	...	No improvement.
13.	4 months	0·5 g. 6th hrly. for five days (10 g.)	12	2	do.	do.	do.	do.	Nil	...	do.
14.	10 days	0·5 g. 6th hrly. for two days 0·25 g. 6th hrly for two days (6 g.)	10	1	do.	Blood − Mucus −	do.	Nil on 3rd day	Pain and tenesmus relieved	Chlorostrep one capsule 6th hrly. for 4 days	...
15.	1 week	do.	8	1	do.	do.	do.	do.	do.	do.	...
16.	6 months	do.	10	1	do.	do.	do.	Nil on 4th day	do.	do.	...
17.	1½ months	do.	20	1	do.	do.	do.	Nil on 3rd day	do.	do.	...
18.	1 year	do.	12	1	do.	do.	do.	Nil on 4th day	do.	do.	...
19.	24 days. 4 months ago had a similar attack	do.	20	1	do.	do.	do.	Nil on 3rd day	do.	do.	...
20.	10 days	do.	8	1	do.	do.	do.	Nil on 3rd day	do.	do.	...

The aims of this clinical trial were (1) to note the effectiveness of camoform in amoebic dysentery and (2) to find an effective dosage schedule.

Results

Twenty patients were put on camoform. Fifteen of them showed marked improvement. Five of them failed to improve. The symptoms were rapidly alleviated in the dysenteric cases. Tenesmus and abdominal pain disappeared usually within two or three days. Formed stool was passed by the second to fifth day. Macroscopically, blood was absent by the second to fifth day. Microscopically, *E. histolytica* was not seen by the second day to the fifth day. The varied response and the different dosage required may be due to the secondary invaders in the large intestine and their virulence. We are of the view that camoform could be made more effective by combining with a suitable oral antibiotic like chlorostrep. None of the fifteen patients (Table 2) who were cured returned to us with a relapse.

In one case, repeated stool examinations for one month after cessation of treatment failed to show either vegetative form or cyst of entamoeba. This patient happened to be our hospital employee and had not had any relapse till five months later.

None of the patients in this series showed any toxicity though the total dosage varied from 4·5 g. to 15 g. In no case was a second course given.

Follow-up—In response to our request to report for re-examination, 7 of the 15 patients who

Table 2—Analyses of Cases which Responded to Treatment

Case No.	Improvement		Dosage
	Subjective	Objective	
3.	No pain or tenderness after 2 days	Negative macroscopic findings on sixth day No *E. H.* after 8th day. Blood absent and stools formed after 4th day	Camoform 0·5 g. t.d.s. for 8 days.
4.	After third day no pain or tenderness	*E. H.* not seen on the 5th day	Camoform 0·25 g. t.d.s. for 8 days
5.	Improvement in 2 days ...	Formed stools; no blood in one day; no *E. H.* in 2 days.	Camoform 0·5 g. t.d.s. for 5 days.
6.	No pain after one day ...	Formed stools after 2 days; no blood; *E. H.* not seen after 3 days	Camoform 0·5 g. 6 hrly. for 4 days.
9.	No pain after 2nd day ...	Formed stools without blood and mucus on 2nd day. *E. H.* absent in stools on 3rd day	Camoform 0·25 g. 6th hrly. for 5 days with chlorostrep one capsule 6th hrly for 4 days.
10.	Showed improvement by 2nd day	Formed stools and *E. H.* negative on 3rd day	Camoform 0·5 g. 6th hrly. for 2 days; 0·25 g. 6th hrly. for 4 days. Chlorostrep one capsule 6th hrly for 2 days.
11.	do.	do.	Camoform 0·5 g. 6th hrly. for 4 days.
13.	Showed improvement by 4th day	Formed stools and *E. H.* negative on 4th day	do.
14.	Showed improvement by 2nd day	do.	Camoform 0·5 g. 6th hrly. for 2 days; 0·25 g. 6th hrly 2 days. Chlorostrep 1 capsule 6th hrly. for 4 days.
15.	do.	do	do.
16.	do.	Formed stools and *E. H.* negative on 3rd day.	do.
17.	do.	Formed stools and *E. H.* negative on 2nd day	do.
18.	do.	Formed stools and *E. H.* negative on 4th day	do.
19.	do.	Formed stools and *E. H.* negative on 3rd day.	do.
20.	do.	do.	do.

were cured reported. The period of follow-up varied from 2 to 14 months. In all of them the stool examination failed to show either vegetative or cystic forms of *E. histolytica*. They were free from further attacks of dysentery after the treatment.

Conclusions

The satisfactory results, the absence of iodine or arsenic in its composition, easy administration and absence of toxicity commend camoform for larger use in amoebic dysentery. The dosage schedule suggested is to give 2 tablets 6-hourly for 2 days and 1 tablet 6-hourly for two more days, though it has to be adjusted in individual cases. Concomitant administration of combined antibiotics sixth hourly definitely improves the results.

Summary

Camoform, a new synthetic compound, was tried in amoebic dysentery. The results in the series were satisfactory.

Acknowledgments

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A STUDY WITH A NEW AMOEBICIDAL DRUG

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Amoebiasis is quite common amongst all classes in the society and persistence of the chronicity is often due to re-infection assisted by unhygienic surroundings and circumstances, the domestic servants playing a prominent role in the transmission of the infection amongst the upper classes.

Camoform (biallycamical) is a new synthetic organic compound and does not contain iodine or arsenic in its molecule. It is claimed to be possessing marked amoebicidal activity against both intestinal and extraintestinal forms of the disease in man. It is further claimed that on oral administration in human beings 70 to 80 per cent of the drug is absorbed from the gut ; less than 0·5 per cent is excreted in the urine. When the drug administration is discontinued the plasma concentration falls slowly ; within the 1st 3 days 60 per cent of the drug disappears from the plasma but 15 per cent is still present three weeks later.

A series of 16 patients were treated in the indoor wards and the main features of the cases are given in Table 1.

Only adults were selected for the purpose of the trial, the age of the patients varying between 21 and 45 years. There were only three female patients. Only patients with clinical symptoms suggestive of amoebic infection with subsequent confirmation by stool examination were included in the series.

In all the cases the drug was administered sandwiched with the meals to avoid any possible gastric upset. The daily dosage was usually divided into 3 equal administrations. Only camoform was administered to 12 patients and the other four had some other drugs also for associated clinical conditions but no other antiamoebic treatment was done. Eleven cases had a total dosage of 7·5 g., three (all the three females in the series) had 6·5 g., one had 9·5 g. and another one 10·5 g. In the female patients lesser dosage was administered in consideration of their build and body weight. More than the average of 7·5 g. was administered in the two cases who had associated hepatitis as a marked clinical feature.

In all the cases daily stool examination was made during the course of the treatment and at intervals after the course. 8 patients had only cysts, 6 had only vegetative forms and 2 had both the cystic and vegetative forms. Only two of the patients of the series had other associated infections of the gastro-intestinal tract. Stool became free from amoebae after the second day in 9 cases and after the third day in the remaining cases. Slight side reactions in the form of nausea, anorexia and mild headache were noted only in two of the three female patients. Marked degree of symptomatic relief was observed after the second day in two cases, third day in six cases, fourth day in four cases, fifth day in one case, sixth day in one case and seventh day in two cases.

Follow-up was carried on upto one month in all the cases and upto two months in four cases and all the patients were free from any complaints

TABLE I—SHOWING MAIN FEATURES OF THE CASES REVIEWED

Case No.	Age in yrs., sex	Clinical features	Treatment	Stools (*E. histolytica*)		Side reaction	Symptomatic relief after	Review after 15 days
				Before treatment	After treatment Day on which negative			
1.	30, M	Heaviness in upper abdomen. Constipation with occasional diarrhoea, caecum and ascending colon—thickened and tender. Liver—just palpable.	Camoform 2 tablets t.d.s. x 5 days (7·5 g.)	Cysts	2nd day	nil	1 week	Free from complaints. Stool free.
2.	27, M	Recurrent attacks of diarrhoea with blood and mucus in stool —4 yrs. Sigmoidoscopy—no definite ulcer. Swab—pus cells ++	—do—	—do—	—do—	,,	4th day	—do—
3.	23, F	Dysentery—2 yrs. Indigestion, flatulence, pain right hypochondrium. Semiliquid stools —3-4 per day. Liver enlarged 2 fingers and tender. Anaemia—marked.	5 tablets daily for 5 days (6·25 g.). Camoquin 3 tablets a week for 3 weeks.	Cysts and vegetative forms	3rd day	,,	2nd day	—do— Liver—just palpable, not tender. Anaemia improved.
4.	45, F	Dysentery—3 yrs. Semiliquid stools 3-4 per day. Occasional attacks of colic. Caecum and colon—thickened and tender. Irregular fever.	Streptomycin 0·5 g. Penicillin 5 lacs b.d. for 7 days. Camoform 5 tablets daily x 5 days (6·25 g.).	Cysts	2nd day	Mild headache. Anorexia	4th day	—do— Stool free.
5.	32, M	Colicky pain around umbilicus —6 months. Irregular bowels.	Camoform 2 tablets t.d.s. x 5 days (7·5 g.)	Cysts	2nd day	nil	1 week	—do— Stool free.
6.	40, M	Intermittent fever. Pain right hypochondrium, 2-3 semiliquid stools with griping. Liver—enlarged 3 fingers, markedly tender.	Camoform 2 tablets t.d.s. x 5 days. 2 tablets b.d. x 2 days (9·5 g.)	Cysts	—do—	,,	3rd day. Afebrile, formed stool, no colic pain and tenderness gradually subsiding	—do— Liver—just palpable.
7.	30, M	A case of infective hepatitis. While in hospital had an acute attack of dysentery (blood and mucus with stool).	Camoform 2 tablets t.d.s. x 5 days (7·5 g.)	Vegetative forms	—do—	,,	2nd day	—do— Liver—just palpable. Liver function tests—improved.

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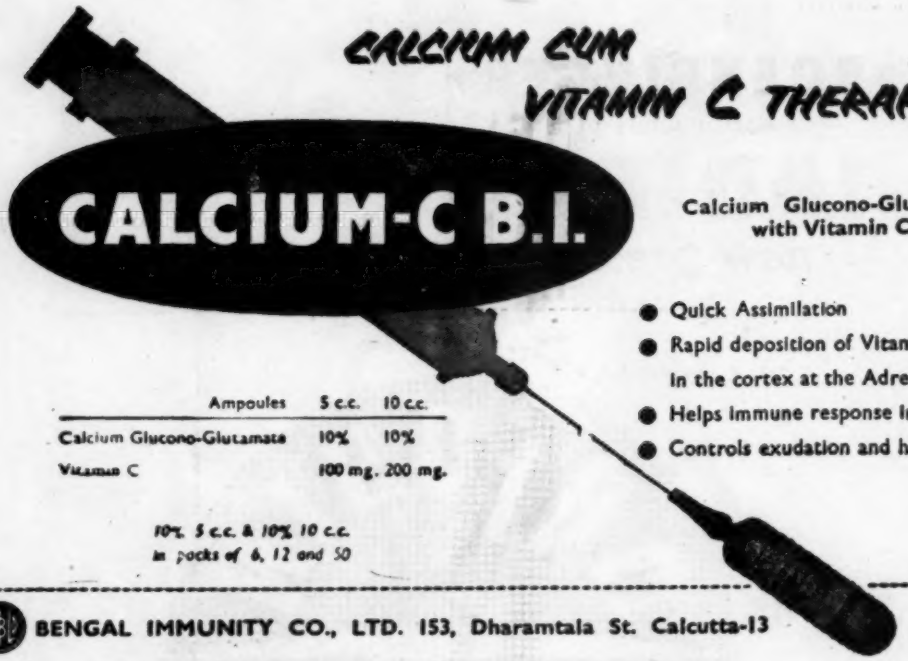

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8.	36, M	Irregular fever—3 weeks. Loose stools 3-4 per day with slight griping. Liver—palpable and tender. Crepitations right base of lung. Screening—diminished excursion of right dome of diaphragm.	Camoform 2 tablets t.d.s. x 5 days (7·5 g.) Penicillin 5 lacs b.d.—4 days.	Vegetative forms	2nd day	nil	3rd day. Temp.—normal from 5th day	Free from complaints.
9.	21, M	Pain rt. iliac fossa and rt. hypochondrium—1 yr. Frequent passage of stool with mucus and blood with griping.	Camoform 2 tablets t.d.s. x 5 days (7·5 g.)	Vegetative forms	—do—	,,	3rd day. Relapse of abdominal pain, stool showed ascaris and ankylostoma ova —treatment given	—do—
10.	30, M	Irregular fever—5-6 days, colicky pain, loose stools.	—do—	Cysts	3rd day	,,	3rd day. Afebrile from same day	—do—
11.	35, M	Pain—rt. hypochondrium and epigastrium—2-3 weeks, flatulence and indigestion—3 months. Liver—palpable and tender.	—do—	Both vegetative and cystic forms	—do—	,,	5th day	—do—
12.	40, M	Pain—lower abdomen, (griping) —2-3 months.	—do—	Vegetative forms	—do—	,,	4th day	—do—
13.	36, M	A case of splenic anaemia with marked bone marrow aplasia —developed acute dysentery.	—do— (7·5 g. with osmokaolin).	Vegetative forms	3rd day	,,	—do—	—do—
14.	28, F	Pain right iliac fossa with occasional diarrhoea—1 yr.	Camoform 5 tablets daily x 5 days (6·25 g.)	Cysts	—do—	Nausea, vomiting once only	6th day	—do—
15.	24, M	A case of acute nephritis, developed acute dysentery on 8th day in hospital.	Camoform 2 tablets t.d.s. x 5 days (7·5 g.)	Vegetative forms	2nd day	nil	3rd day	—do—
16.	36, M	Irregular fever—2 weeks. Pain right hypochondrium. Liver—enlarged 2 fingers and tender, past history of dysentery. Screening—diminished excursion both domes of diaphragm, more on right.	Camoform 2 tablets t.d.s. x 5 days. 2 tablets b.d. x 3 days (10·5 g.)	Cysts	3rd day	,,	4th day. Afebrile after 4th day	—do—

and their stools were free from amoebae. The patients had definite instructions to report to either of the authors direct in the event of any gastro-intestinal disorders but none of them reported even after about 6 to 9 months from the start of the series and there are good reasons to conclude that they would have acted upto the instructions had they had any complaints.

Both acute and chronic forms of the disease are included in the series. The periods of symptomatic relief to the patients, improvements in the clinical picture and disappearance of the amoebae from the stools were very encouraging. Satisfactory tolerance and virtual absence of any severe drug toxicity were striking features. A case associated with severe degree of anaemia (Case 3) responded very well to the simultaneous anti-anaemic treatment during and immediately after the course of the drug. In the case of infective hepatitis (Case 7) the liver function tests before and after the camoform treatment did not show any retardation in the progress of the condition. The improvement ushered in the case of splenic anaemia with bone-marrow aplasia (Case 13) with relevant treatment maintained the stride of progress inspite of camoform treatment. The case of acute nephritis (Case 15) showed no deviation from the usual desired course of progress after the course of camoform treatment.

Successful treatment of amoebiasis is still a great problem especially in chronic cases. There are quite a number of drugs in our armamentarium and this is being augmented by further additions. The newer additions are sometimes a combination of the existing drugs or occasionally an absolutely new synthetic preparation. As a rule the profession takes up such additions with eagerness but not without doubts. Some are discarded after initial trial while others are retained. Though only a small number of 16 cases is included in the trial, the results were quite encouraging, the criterion being based on clinical improvement, symptomatic relief, amoeba-free stools and follow-up results. Though the initial cost of treatment is rather high, the ease of administration, absence of toxic side effects, quick results with shortening of convalescence and individual disability, prompt the authors to conclude that this is a drug worth further trial.

Summary

A series of 16 cases of amoebic dysentery treated in the indoor wards with a new non-arsenical, non-iodised synthetic amoebicidal drug by oral administration is reported. The results are quite encouraging.

Acknowledgments

We are thankful to Dr. G. L. Vaishnavi, Chief Medical Officer, Calcutta Port Commissioners, for kindly allowing us the use of hospital records. We are also thankful to Dr. D. P. Lahiry, our Pathologist, for the clinical examinations of the cases. Our thanks are also due to Messrs. Parke Davis & Co. for kindly supplying us with free samples of camoform for the trial.

CASE NOTE

CARDIAC ARREST

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Every surgeon at some time or other in his career may have to face the emergency of 'cardiac arrest', and having seen two cases during the course of one year, it is thought desirable to publish them.

Case Report

Case 1—C. L., Hindu male, aged 15 years, was admitted on 5-5-1956, with pain in the right iliac fossa for the last 5 hours. It started as a central abdominal pain with vomiting, and the pain had later localised in the right iliac fossa. A diagnosis of acute appendicitis was made and the patient prepared for appendicectomy.

Anaesthesia was induced with I.V. pentothal and flaxedil. Gas and oxygen were given and the patient intubated. There was no undue difficulty in intubation, nor was there any struggling, though it is possible that there was some delay in inserting the tube after gas and oxygen were given.

Towels were draped, and McBurney's incision made. There was hardly a drop of blood, and that too was very dark in colour. On enquiry the anaesthetist examined the radial and carotid pulses, and informed that there was no pulse. No heart sounds were audible on auscultation.

With the same knife, the upper abdomen was opened by a midline incision and cardiac massage started with the right hand on the chest and the left beneath the diaphragm. As there seemed to be no response cardiac massage was suggested through a thoracotomy. The fifth left intercostal space was opened through an intercostal incision and cardiac massage started through the thoracotomy. After about 3 minutes, spontaneous heart beats started, feeble at first, more powerful later on. The anaesthetist all the while continued artificial respiration, using the anaesthetic bag. After about 20 minutes the respiration returned, and as the colour now seemed satisfactory all the 3 incisions were closed.

Postoperatively, the pulse rate was 120 per minute for the next 8 hours. A slow intravenous infusion of 5 per cent glucose followed by 540 c.c. of 25 per cent glucose was kept up. Twenty hours after the operation the patient opened his eyes and said a few words. He was given procaine penicillin 4 lac units and streptomycin 1 g. once daily as a prophylactic against infection. X-ray of the chest 3 days later was normal and he was allowed up. He was discharged on the tenth postoperative day. His E.C.G. was normal. He had continued satisfactory, except for a slight tendency to keloid formation in the laparotomy scar for which he had a course of deep x-ray therapy.

Case 2—M. I., Hindu male, aged 35 years, was admitted with a diagnosis of Buerger's disease. He was claudicating in the right leg at 200 yards, and the dorsalis pedis pulse on that side could not be felt. His cardiovascular and respiratory systems were otherwise normal, and he was prepared for lumbar sympathectomy.

Anaesthesia was with I.V. pentothal, flaxedil, gas and oxygen intubation and was satisfactory throughout the operation. A transperitoneal route was used and a bilateral lumbar sympathectomy performed. The patient's condition throughout the operation was satisfactory, but as the skin was being closed, the heart suddenly stopped. On auscultation no heart sounds could be heard.

A thoracotomy through the fifth intercostal space was made and cardiac massage started. The anaesthetist continued artificial respiration with the anaesthetic bag using pure oxygen. Cardiac massage continued for 20 minutes before the heart beat commenced. It was not regular to start with, but later improved. The original laparotomy and the thoracotomy incisions were closed, and the patient was returned to the ward with an intravenous drip of 5 per cent glucose, and oxygen. Postoperatively he was given 540 c.c. of 25 per cent glucose. For the first 8 hours his pulse rate was very high (130 per minute). It then settled down to 90 per minute and his general condition seemed satisfactory. He never regained consciousness and expired 22 hours after the operation.

Discussion

Incidence—Statistical matter in this country is difficult to collect, but at this hospital where approximately 10,000 operations were peformed during one year, there were 6 cases of cardiac arrest.

Aetiology—Generalised anoxia during anaesthesia is the commonest cause of cardiac arrest, though this is not always essential. Massive haemorrhage with a falling blood pressure results in an inadequate coronary flow and cardiac arrest. Intravenous infusion may not always help, cardiac contraction may be impaired and blood may not be transferred to the left side of the heart (this is the type of case which may be helped by immediate massive intra-arterial infusion of human blood or plasma). Drugs can cause cardiac arrest. Adrenaline can convert cardiac asystole to ventricular fibrillation, and this is an argument against the routine use of intracardiac adrenaline.

Diodone injected intravenously causes a fall of blood pressure, and can cause cardiac arrest due to ventricular fibrillation.

In air embolism, air fills the right ventricle, and this is unable to propel the blood to the lungs. Further, if air enters the left ventricle it may enter the coronary circulation giving rise to immediate ventricular fibrillation.

Diagnosis—A diagnosis of cardiac arrest is made if the pulse disappears. This is confirmed by feeling for the carotid pulse, and auscultating the heart.

There may or may not be a phase of preceding hypoxia.

Treatment—Treatment must be immediate. A thoracotomy is performed and cardiac massage is started. A circulation adequate to maintain cerebral function can be maintained for some time. Pulmonary ventilation must be maintained at the same time. If an endotracheal tube is in position, it is easier for the anaesthetist to use the anaesthetic bag. Pure oxygen under pressure is used as the pleura is open. It is possible to give artificial respiration by the use of a face-piece alone.

Technique of cardiac massage—A rate of about 50 times per minute is recommended. The heart should be compressed firmly between the thenar eminence and the palmar surface of the fingers (not the finger tips as there is a danger of perforation of the heart). If massage does not work through the intact pericardium, this must be opened, and massage started with both hands.

Thoracotomy is now recommended in preference to a laparotomy, as the efficiency of cardiac massage performed by this route is much more and the percentage of success is higher. Present day morbidity of thoracotomy is no more, and though at first the general surgeon may hesitate to enter the chest, he will find that the intercostal incision is quicker.

Comments

It is felt that the younger patient with the better heart muscle and cerebral circulation was able to withstand the period of cerebral anoxia better than the second, who was suffering from disease of the arteries.

To be successful in cardiac arrest, cardiac massage must be performed early. This can be better performed through the abdominal route. It is unusual to have a success where laparotomy is followed by thoracotomy for massage (as in Case 1) and this is not recommended.

Summary

Two cases of cardiac arrest are reported. Both had cardiac massage, one recovered.

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THE GENERAL PRACTITIONER AND CARDIAC SURGERY

Frequent allusions to the role of the general practitioner in modern medical practice indicate that progress is made only as the standards of general practice are elevated. Certain counter-currents on the other hand are to the effect that the general practitioner is so far removed from the forefront of some of the various branches of medicine and surgery that he need not be concerned and the attendant problems can be left purely in the hands of the specialists. This is an especially erroneous concept as far as the field of cardiac surgery is concerned.

Surgical treatment of lesions of the heart and great vessels has seen an unequalled advancement and yet, fortunately, instead of growing away from the general practitioner actually comes closer to him as greater experience is obtained. Although the actual surgical treatment of such cases may have to be relegated to a comparatively small number of hospitals, the selection of cases, which is of greatest importance, is definitely a function of the family physician. During the early stages of the development of the surgical procedures it was thought that the diagnosis could be established and the cases for surgical correction selected only by those with particular training and experience in cardiology. That this was a false impression is now generally recognised.

Although practically all types of lesions of the cardiovascular system have had attempts made surgically to correct them, for the present the lesions that are being successfully treated surgically on a comparatively wide scale are patent ductus arteriosus, the tetralogy of Fallot, pure pulmonary stenosis, coarctation of the aorta, and of the acquired heart lesions, mitral stenosis. The myth regarding the relative infrequency of rheumatic heart disease in the tropics has now been dispelled and such cases are frequently seen by all general practitioners. If the patient has pure mitral stenosis the question of surgical intervention is quite easily settled. In almost every instance mitral stenosis is a progressive lesion and when symptoms develop that interfere with a normal routine of living for that individual, consideration should be given to operative treatment. It is a mistake to wait until marked cardiac decompensation is evident or other complications have developed. The risk of operation is probably not over 5 per cent for patients in the grade I and grade II categories without mitral incompetence or other organic abnormality. A careful history and physical examination together with fluoroscopic examination and an electrocardiogram are all that should be needed in the investigation of such patients. When there is a large element of mitral incompetence or associated other valvular lesions the judgment of a cardiologist with a large clinical experience in such cases is of great value. Here again it is largely a matter of clinical judgment and appraisal rather than the use of complicated investigative procedures. Left heart catheterisation studies, permitting accurate measurement of pressures within the left auricle and left ventricle, are necessary in a few instances ; the technique of which is being developed rapidly in many centres abroad.

The extensive knowledge of congenital cardiovascular lesions of Dr. Helen B. Taussig, who recently visited this country, has been gained to a very great extent on purely clinical grounds and without the more elaborate diagnostic procedures now available. She is a striking demonstration of what can be learned by an intelligent, diligent appraisal of the findings on physical examination together with the fluoroscope and the electrocardiogram. Well over 100 cases of the tetralogy of Fallot were operated upon under her guidance before the first angiocardiograms were taken at the Johns Hopkins Hospital[1] and long before facilities for cardiac catheterisation and blood gas analysis had been provided for. There is no doubt that there are certain of the more complicated or bizarre conditions that call for the use of every diagnostic measure there is to arrive at a correct appraisal of the situation but it should not be assumed that all cases of congenital heart disease can be diagnosed only by such elaborate means. Cardiovascular laboratories where difficult cases can be referred to are necessary but the usual congenital heart disease patient need not be so investigated. Equipment for such centres is usually obtainable by some method, even though it is expensive, but providing adequate, experienced personnel for the handling of the equipment and

[1] TAUSSIG, H. B.—*J. Christian M. A. India*, **32** : 53, 1957.

the interpretation of the findings is a much more difficult problem.

A recent review of 2,000 post-mortem examinations by Hadley and Gault[2] indicates the importance of heart disease as a cause of death in India. These postmortems, done between 1945 and 1957, indicate that about 8 per cent of patients dying in their hospital died of heart disease. Of the 162 such cases, 82 or roughly 50 per cent were due to rheumatic lesions of the heart. These lesions were over ten times more frequent than coronary occlusion and surprisingly 6 of the 82 fatal rheumatic heart lesions were in children under the age of ten. There were 25 fatalities from congenital cardiovascular anomalies, many in the neonatal period.

In the past when only limited measures were available for the treatment of many cardiac conditions a rather fatalistic attitude developed among many of the physicians that tended to discourage accurate diagnosis, especially of congenital lesions. The vastly improved outlook for both congenital and rheumatic heart cases should now be a strong added incentive to the general practitioner to take advantage of the opportunity that is presented and see to it that a definite diagnosis is established in every instance in order that the benefits of surgical help can be offered those patients that are suitable. It is very gratifying that this end can be achieved in a high percentage of cases by the family physician with the ordinary diagnostic measures at his disposal.

DISPOSAL OF HUMAN EXCRETA

The status of health of the nation is determined not in the handful of cities and towns in the land but in the five-and-a-half lakh of villages in India. Improvement of the sanitary condition of the villages where lives the bulk of India's population—some 80 per cent of the total is therefore of prime importance.

A large part of the rural population suffers from and dies of communicable bowel diseases every year. The regret is all the more serious because such diseases are preventable. Prevention lies in keeping the water safe from contamination by human excreta. This of course, it should be remembered, is not the only source of danger to the meagre and unsatisfactory supply of water for the village population. But bowel diseases at any rate can be largely prevented by proper and safe disposal of nightsoil.

The Public Health Department of the Government of West Bengal has been trying for some time to introduce the well type water-seal plate latrine in the rural areas of the State.[1] The introduction has been confined mainly to the Community Development Project and National Extension Service Block areas of the State. In these areas the ready-made water-seal plates made of concrete are being supplied at Rs. 10/- each. In addition, in 10 thanas in 8 districts under the National Water Supply and Sanitation Scheme, these are being supplied free. The available statistics show that 2 per cent of houses in the NES—CDP blocks and 17·5 per cent in the thanas under the National Water Supply and Sanitation Scheme are now equipped with these.

The chief advantage of this type of latrine is that the wells can be dug by the villagers themselves. The seats can be fitted away from the well and connected by a pipe. When the well is full, a new one can be dug and simply the pipe shifted.

It should of course be remembered that such dug-well latrine is suitable only for the soft soil of Bengal. Indeed the physical features of India vary so much that no single type of latrine can possibly serve the needs of the entire rural population of the country. Several types suitable for different kinds of soil will have to be evolved. Another consideration, a very important one, is that the cost must be within the limited means of the average rural householder. The success of suitable latrines in the NES and CDP areas throughout the country in bringing down the morbidity and mortality of bowel diseases will largely influence the rural population in installing them in their own homes, provided they are easily constructed, readily available and within their means.

The safe disposal of human excreta is an urgent problem in the rural areas and the sooner it is tackled on a co-ordinated national basis, the better will it serve the cause of health of the entire nation.

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CURRENT MEDICAL LITERATURE

Anuria in Medical Conditions

MILNE (*Lancet*, **1** : 305, 1957) at the meeting of the section of medicine of the Royal Society of Medicine held on 22-1-57 on the subject of anuria in medical conditions stated that absolute anuria was rare in medical conditions, being commonest in cases of ureteric obstruction. Acute oliguric renal failure could occur either in patients with chronic renal disease or in patients with previously normal kidneys. The two most common causes in patients with chronic renal disease were salt depletion and an acute exacerbation of pyelonephritis. Acute renal failure in patients without previous renal disease could best be classified according to the anatomical site of the lesion : (*a*) diseases affecting the main renal arteries or veins; (*b*) diseases affecting the smaller renal arteries, afferent arterioles, and glomeruli; (*c*) diseases affecting the renal tubules; and (*d*) cases of ureteric obstruction. Diseases of the renal arteries or veins were more likely to cause anuria or oliguria if there was only a single kidney. A disturbingly large number of cases of oliguria followed diagnostic aortography. This was a potentially dangerous diagnostic technique and should be applied only if it was likely to yield essential information. It was undesirable to perform a major surgical operation shortly after aortography since repeated renal circulatory damage was additive in its effects on kidney function. Oliguria and anuria due to polyarteritis nodosa or acute glomerulonephritis was of more serious prognosis than the more usual cases of acute tubular necrosis and did not appear to be benefited by cortisone.

Of tubular lesions, acute tubular necrosis due to renal ischaemia and proximal tubular necrosis due to nephrotoxic drugs had a more favourable prognosis than renal cortical necrosis with simultaneous glomerular damage and renal papillary necrosis affecting the renal papillae and collecting tubules. Obstructive lesions of the ureters should be treated surgically but were important to the physician since they could mimic medical varieties of anuria. Conservative treatment was essential in all cases of acute renal failure, but dialysis with the artificial kidney was useful in cases showing uncontrolled hyperkalaemia or acidosis.

Dr. A. M. Joekes described some illustrative cases of oliguric renal failure complicating medical conditions. One cause of acute tubular necrosis which had not often been recognised was the profound circulatory collapse after a major pulmonary embolism. Hepatic disease with jaundice seemed to predispose to acute renal failure. Dr. Joekes described 4 cases associated with biliary cirrhosis and acute hepatitis, all 4 recovering from the episode of renal failure. The role of haemoglobinuria in the production of acute tubular necrosis was still undefined. While renal damage was common after incompatible blood-transfusion and in blackwater fever, it was rare in acute haemolytic anaemia. An additional element of circulatory shock seemed to be an essential factor in causing renal damage.

Percutaneous renal biopsy was sometimes of great value in assessing whether recovery was possible, and therefore in guiding therapy. In a case of scleroderma with severe renal damage, prolonged conservative therapy had been deemed undesirable in view of the gross and irreversible renal damage found at biopsy.

Dr. B. M. Darmady described the changes in acute tubular necrosis as shown by microdissection of nephrons and histological preparations. Immediately after the onset stage the glomeruli were engorged with blood, and this was followed by a focal loss of translucency of the tubules, mostly confined to the proximal segment. In the early stage of anuria or oliguria, transparent casts were seen in the lower end of the proximal tubule and loops of Henle; there was scattered tubular epithelial disarrangement and focal necrosis. In the middle of the anuric phase there were tubular ruptures in all parts of the nephron; at the same time there were prominent casts in the distal and collecting tubules. In the diuretic phase there was evidence of epithelial regeneration in the previously damaged portion of the nephron. Dr. Darmady considered that interstitial oedema with increase of intrarenal pressure was not the cause of the oliguria. Since many of the tubules were not sufficiently damaged to prevent urinary secretion it was thought the glomeruli must be the operative factor in causing the anuria or oliguria. Possibly the engorgement of the glomeruli in the early stages was similar to the anuria occurring in homotransplanted kidneys in dogs; for, although there was damage to the juxtaglomerular portion of the nephron which could be partly prevented by cortisone, injection of indian ink into the renal circulation at the time of anuria showed that the glomeruli were overfilled with blood, suggesting lack of tone of the capillary tuft with a sluggish circulation.

In the recovery phase of oliguria there might be considerable excess urinary potassium loss. In these cases the tubular cells showed the typical "vacuolar nephropathy" of potassium depletion—a change which Dr. Darmady had also found in kidneys from cases of primary aldosteronism.

Syphilitic Aortic Incompetence

LEONARD AND SMITH (*Lancet*, **1** : 234, 1957) in dealing with 374 cases of syphilitic aortic incompetence with special reference to prognosis and effect of treatment observe :

222 patients died and 102 survived. Of the entire series 75 per cent were alive after 1 year, 54 per cent after 5 years, 32 per cent after 10 years, and 14 per cent after 20 years. The mean survival of all those who died was 48 months from the date of diagnosis.

Female and younger patients had a more favourable prognosis.

49 patients were free from symptoms at the time of diagnosis; this group had a good prognosis, 84 per cent being alive after 5 years.

180 patients had cardiac pain at diagnosis. It was commoner in females aged less than 50 and carried a relatively good prognosis : 46 per cent of the patients survived 5 years, and 16 per cent survived 20 years. The mean survival of all those who died was 56 months from the date of diagnosis.

111 patients had heart-failure at diagnosis. It was commoner in males and older patients and carried a bad prognosis: only 15 per cent of the patients survived 5 years. The mean survival of those who died was only 18 months from the date of diagnosis.

The diastolic blood-pressure was a good index of prognosis.

In untreated patients the E.S.R. was raised in 80 per cent of patients without congestive heart-failure and in 64 per cent of patients with congestive heart-failure. The mean E.S.R. before treatment was 32 mm. and after penicillin 13 mm. There was some evidence that an E.S.R. above 50 mm. was a bad prognostic sign.

Calcification of the ascending aorta was noted in 35 per cent of 64 radiographs personally examined. It was commoner in elderly patients.

After the exclusion of patients dying within a year of diagnosis, patients with heart-failure, asymptomatic patients, and patients aged more than 60 years, the mean survival of the patients who died was increased from 100 to 151 months by intensive treatment with arsenic and/or bismuth; after 10 years 60 per cent of the "fully treated" group survived, compared with only 31 per cent of the "inadequately treated" group. This difference is statistically significant.

Many of the patients with penicillin are still alive. Convulsions in the present series must be regarded as provisional only. There was no evidence that patients treated with penicillin and either arsenic or bismuth had a better prognosis than patients fully treated with either arsenic or bismuth alone. Patients treated with penicillin alone, however, appeared to have a slightly poorer prognosis.

It is therefore recommended that, on the information at present available, patients should receive at least one full course of either arsenic or bismuth and a full course of penicillin. (*Authors' summary.*)

Patent Ductus Arteriosus

COSH (*Brit. Heart J.*, **19**: 13, 1957 Ref. *J.A.M.A.*, **163**: 1393, 1957) in reviewing a follow-up study of 73 cases of patent ductus arteriosus observes:

Of a series of 73 patients (53 females and 20 males) with simple patency of the ductus arteriosus 69 were followed up. Seven of these had died. The causes of death, were bacterial endocarditis in 4, pulmonary embolism in 1, congestive heart failure in 1, and diphtheria in 1. Thus, 5 of the 7 deaths were directly and 1 was indirectly attributable to the patent ductus. Bacterial endocarditis developed in 6 of the patients. Four of them died before penicillin was introduced, and the 2 who survived were both infected with *Streptococcus viridans* and recovered after the usual treatment; in each the ductus was ligated a few weeks later. The ages at which endocarditis developed ranged from 9 to 36 years (average 21). The incidence of 6 among 69 (9 per cent) is far lower than had been ascertained in 3 autopsy series, in which it ranged between 29 and 53 per cent. The patent ductus was limited in 28 of the patients, the usual indications being dyspnoea, fatigue, poor physique in childhood, cardiac enlargement, or recent bacterial endocarditis. The ductus was not ligated in 34 patients, whose average age at the time of the follow-up was 26 years. None suffered serious restriction of activity, although 7 were aware of dyspnoea, and 8 had some cardiac enlargement. In 4, the continuous murmur had disappeared. Twentyone of the 35 patients with and only 5 of the 24 without a precordial thrill were selected for operation.

Childbirth occurred 23 times in patients with patent ductus and was without difficulty or complication. Only 1 patient required termination of pregnancy with sterilization. Children with patent ductus were significantly underweight when compared with normal children. Only 4 of 13 showed a significant improvement in weight in the years following ligation of the ductus. While this review shows an appreciable mortality and infection rate among patients with patent ductus, it suggests a much better prognosis than do those reports that are based entirely on autopsy findings. It shows, too, a lower morbidity rate in unselected cases than among those usually referred to hospital. Other features are the general well-being of the adult patients, the occurrence of pregnancies and childbirth without complication, and the occasional apparent closure of the ductus in early adult life. Patients who survive without operation are a selected group in that those with the worst cases have either died or have had the ductus ligated, implying that the ductus is not widely patent in those who have not had surgical treatment. The first 21 patients in the series, however, all given diagnoses before 1934, were unselected in that none had had the ductus ligated. Of these 21, 4 had died, 2 of bacterial endocarditis, 1 of heart failure, and 1 of diphtheria; 2 could not be traced; but the remaining 15 were well, including the 4 who had lost their continuous murmurs.

Serum-Protein Levels in Lesions of the Hypothalamic Region

LOMAX (*Lancet*, **1**: 904, 1957) writes that it is well-known that the hypothalamus is either directly or indirectly concerned with regulating the metabolism of carbohydrate and fat, water balance, and vasomotor activity, and that lesions in the hypothalamic region can disturb these functions. No report of disturbances of protein metabolism in association with focal lesions of the brain seems to have been published.

Alterations in the serum-protein pattern in certain neurosurgical conditions reported suggest that lesions affecting certain not yet accurately localised basal regions of the brain are responsible for these changes.

Attention was first drawn to the serum-protein levels in connection with checking the adequacy of nutrition of comatose patients, especially those with head injuries. These patients were given, through a Ryle's tube, a diet of about 2000 calories daily containing 90-100 g. of first-class protein.

In all the seven cases of lesions involving the hypothalamic region, the serum-protein levels were changed, the serum-albumin level being lowered and the serum-globulin level raised.

Radioactive Vitamin B_{12} in the Diagnosis of Neurological Disorders

BERLYNE AND OTHERS (*Lancet*, **1** : 294, 1957) write that subacute combined degeneration of the spinal cord is caused by deficiency of vitamin B_{12} (Castle's extrinsic factor), the absorption of which is impaired by lack of intrinsic factor. In patients with the typical history of peripheral paraesthesiae associated with paresis, clear neurological signs, megaloblastic anaemia, and achlorhydria, the diagnosis is not in doubt, but such a clear clinical picture is by no means always found.

The most satisfactory way of establishing the diagnosis is to demonstrate that the patient cannot absorb vitamin B_{12}. This vitamin contains cobalt and can conveniently be labelled with its radio-isotopes, ^{58}Co or ^{60}Co.

Results of an excretion test with radioactive vitamin B_{12} in normal subjects, in classical cases of subacute combined degeneration of the cord, and in a series of patients in whom the diagnosis was in doubt showed that this test confirms or excludes the diagnosis with reasonable certainty.

Chronic Hypercortisonism in Arthritic Patients

SLOCUMB AND OTHERS (*Ann. Int. Med.*, **46** : 86, 1957) give in the following lines the summary of their observations on the study of diagnosis, treatment and prevention of chronic hypercortisonism in patients with rheumatoid arthritis :

Excessive exogenous hormonal dosage with cortisone, hydrocortisone, prednisone, prednisolone or corticotropin may result in either acute (short-term) or chronic (prolonged) hypercortisonism.

Chronic hypercortisonism in rheumatoid patients is characterized by the cyclic and usually associated occurrence of increased fatigability, significant emotional instability and generalized muscular and articular aching, in addition to the other more commonly recognized signs of hypercortisonism. Diffuse mesenchymal reactions simulating systemic lupus erythematosus or periarteritis nodosa also may develop. These diffuse mesenchymal reactions are serious and may be fatal complications of chronic hormonal overdosage but do not reflect the degree of underlying rheumatoid activity, which may or may not be minimal after the rheumatoid patient recovers from the effects of chronic hypercortisonism.

When chronic hypercortisonism has occurred in rheumatoid patients, dosage of exogenous hormones needs to be gradually and slowly reduced in conjunction with other treatment until the signs and symptoms of excess dosage have disappeared. When reductions of dosage have been too rapid, a flare of the rheumatoid arthritis or other mesenchymal reaction may develop. If this occurs, the dosage may need to be temporarily increased and thereafter reduced more slowly. In other instances, reversible stages of diffuse mesenchymal reactions occurring in the course of chronic hormonal overdosage may be controlled by temporarily deferring reduction of the dosage to the desired level. In some patients, hormonal therapy ultimately may need to be discontinued for several months or longer to permit complete disappearance of the signs of hypercortisonism. When signs and symptoms of hypercortisonism have been eliminated, small doses of exogenous hormones within anticipated limits of tolerance for the patient's age and sex may be used satisfactorily in long-term hormonal therapy if needed.

Short periods of increased doses of adrenocortical hormones may be needed for those patients subjected to the added stress of surgical procedures, severe trauma or infections while still receiving hormonal therapy, or who have had signs of hypercortisonism in the six to 12 or more months preceding such stress.

The usefulness of these hormones for patients with rheumatoid arthritis is not judged by reactions developing as a result of overdosage. Optimally tolerated doses of cortisone or its effective analogues or corticotropin are potent and valuable therapeutic agents, despite the effects of chronic hormonal overdosage in patients with rheumatoid arthritis. However, in the long-term treatment of rheumatoid arthritis, dosages of exogenous adrenocortical hormones or corticotropin that result in chronic hypercortisonism are not advantageous and should be avoided.

Calcium Metabolism in Sarcoidosis

MATHER (*Brit. M.J.*, **1** : 248, 1957) from radiographic studies of the hands and feet in 120 patients with sarcoidosis observes :

Bone lesions were found in only nine. Such radiographs are thus of little value in diagnosis. The common association of cutaneous sarcoids with bone disease was confirmed (five out of the nine patients). No examples of disturbed calcium metabolism were seen in those with bone disease.

Estimations of serum calcium in 86 untreated patients showed hypercalcaemia in only four. Hypocalcaemia occurred in four. The effects of hypercalcaemia are described, with special reference to kidney damage. Examples of hypercalcaemia following the treatment of sarcoidosis with calciferol are given and its dangers emphasized.

Clinical and biochemical studies support the hypothesis that hypercalcaemia in sarcoidosis is due to excessive sensitivity to vitamin D. Control of this complication may be achieved by a diet low in calcium and vitamin D, although cortisone is sometimes necessary.

Renal Colic and Persistent Hypercalcuria after Vitamin D Therapy

FREEDMAN (*Lancet*, **1** : 668, 1957) reports a patient who, after prolonged self-administration of vitamin D, was admitted to hospital with renal colic presumed to be due to the passage of a small renal stone.

Hypercalcuria was present without hypercalcaemia and persisted for at least fifteen months after the vitamin had been withheld. This is assumed to have been induced by the vitamin D and to have been the cause of the renal symptoms.

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Studies on the Portal Tension of Human Adults

MORENO AND OTHERS (*Surg. Gynec. & Obst.*, **104**: 25, 1957) write:

Portal tension was determined at laparotomy in 100 human adults of both sexes. Since these experimental subjects were not entirely normal adults, every possible effort to discover unapparent causes of portal hypertension was made. Only cases meeting the somewhat arbitrary criteria of normality in portal circulation set for the investigation were included in this series. However, because of the incomplete reliability of these criteria, the results reported are not to be considered, without the proper reservations, as ascribable to normal subjects.

Portal tension was measured according to the method suggested by Taylor and Egbert, using the anterior surface of the bodies of the upper lumbar vertebrae as a base-line for correction. This method proved to be simple and practical, and seemed to provide the important advantage of making the results obtained by different investigators and institutions easily comparable.

Under the conditions prevailing in this study portal tension varied within rather wide limits, averaging 215 millimeters of water for the whole group. Two-thirds of the recordings fell between 166 and 264 millimeters, and the great majority ranged from 100 to 300 millimeters. Only 4 cases showed a pressure higher than this last figure and none reached the 350 millimeter mark. Whether these values are within the limits of portal tension in entirely normal human subjects, an inference not completely warranted by these experiences, remains to be demonstrated by investigations conducted in the future.

Portal tension in the group of male patients showed, in a general way, lower values than those in the female patients, the difference being statistically significant.

Portal tension correlated fairly well with age in the group of female patients but not in the group of male patients.

Since sex differences and correlation with age appeared to represent only a general trend, and many individual cases departed from it, they should probably be considered of little or no clinical significance. The question as to whether they are governed by some not well understood laws of nature is posed. (*Authors' summary*).

Conservative Management of Ureteric Calculi

It is often difficult to decide whether a ureteric stone will be passed spontaneously. Gertman (*U. S. Armed Forces med. J.*, **8**: 313, 1957) points out that surgical treatment has been found necessary in proportions of cases ranging from 7 per cent to 54 per cent; and he suggests that the figures at the upper end of this scale relate largely to cases sent for specialist advice on account of resistance or chronicity. In the U.S. Armed Forces all cases of ureteric calculus are referred at the outset to a urologist. In 218 consecutive military cases referred to him, Gartman applied expectant treatment whenever practicable. Of 237 ureteric stones (in the 218 patients) 186 (78·5 per cent) were passed spontaneously without complications, 38 were dealt with instrumentally, and only 13 (5·5 per cent) had to be removed by ureterolithotomy.

Undoubtedly these figures reflect fairly the likelihood of natural passage, but some qualification is necessary in applying them to civilian practice. Interference with business or other urgent activities by recurrent symptoms sometimes influences the decision when to intervene.

Moreover in the general population there will always be a few with renal insufficiency in whom the removal of a stone is a matter of urgency. Gartman's account is important because it provides some idea of the prospect of spontaneous cure in uncomplicated cases. (Annotations, *Lancet*, **1**: 920, 1957).

Management of Intracranial Bleeding

SILVER (*J. A. M. A.*, **163**: 1097, 1957) from the analysis of 100 consecutive cases of intracranial bleeding gives in the following lines the summary of his observations and recommendations on the management of intracranial bleeding:

All patients suffering intracranial bleeding should be subjected to prompt cerebral angiography to determine the pathological nature of the lesion. This examination should be carried out as soon as practicable. Certain patients with massive brain damage cannot be saved regardless of the method of treatment used. There are other patients in whom surgical removal of an intracranial haematoma, reduction of arterial pressure to a weakened arterial wall (as carotid ligation), or obliteration of a vascular malformation by clipping or coagulation will save life and eliminate the risk of subsequent rupture. This type of active surgical intervention to relieve the effects of intracranial bleeding and to prevent recurrence will actually conserve more lives than the so-called conservative method of treatment. Analysis of cases of subarachnoid haemorrhage, without angiographic or other verification of the nature of the lesion, contributes very little to our understanding of the problem. There should be wider and earlier use of cerebral angiography.

Hyaluronidase in Oedema in Severe Compound Fracture

MCDANIEL AND HOHF (*J. A. M. A.*, **163**: 1358, 1957) write that in a case of severe compound fracture, hyaluronidase, 3,000 U.S.P. units dissolved in 30 c.c. of isotonic sodium chloride solution, was injected to facilitate primary closure of the operative wound and of the relaxing incision. Within 30 to 60 minutes, the size of the extremity had been reduced to a point where primary closure of both wounds was possible. It is felt that primary closure of the wound would have been impossible in this case without use of hyaluronidase, which was an important contribution to the return of an adequate supply of blood to the extremity, in which the circulation was jeopardized by tissue compression.

CURRENT TOPICS

IMPRESSIONS OF THE FIRST INTERNATIONAL ASIAN CONFERENCE ON OCCUPATIONAL HEALTH†

AMRITALAL D. DAFTARY

Vice-Chairman, A.C.O.H. and Past President, Society for the Study of Industrial Medicine (India) Bombay

Preliminary correspondence for this conference was carried on by Dr. G. Teruoka, General Secretary of the Preparatory Committee of the First Asian Conference on Occupational Health, from the Institute for the Science of Labour, Tokyo (Japan). He first wrote to the IMA President, Dr. A. Ukil in 1955, who in his turn wrote to me as President of the Society for the Study of Industrial Medicine (India). I subsequently carried on further correspondence, and it was announced at the 7th All India Conference of the Society for the Study of Industrial Medicine held at Madurai that the First Asian Conference on Occupational Health will be held in Japan during Oct.-Nov. 1956.

The Society for the Study of Industrial Medicine nominated five delegates, but only three of us from Bombay, namely, Dr. M. D. Engineer from Tata industries, Dr. (Mrs.) B. M. Dubash, and myself decided to attend this international conference. Mrs. Daftary accompanied me, as an Ordinary Delegate.

We all reached Tokyo on the night of 19th Oct. 56 and were accompanied at Hotel Teito, a first class hotel.

The conference started at 9 a.m. on 20th Oct. 56 at Hotel Teito. After registration of delegates and introductions, we settled down in countrywise groups in the alphabetical order :—(1) Burma—2 delegates, (2) China, Republic of—4 delegates, (3) India—4 delegates, (4) Indonesia—2 delegates, (5) Philippines—5 delegates, (6) Thailand—2 delegates, (7) Japan as host with several delegates.

Dr. Geto Teruoka read the Preliminary Report, and proposed the name of Dr. Yoneji Miyagawa as Chairman, and my name as Vice Chairman of the Conference. I was then called to the central table. This was a unique honour to our country and to the Society for the Study of Industrial Medicine (India). All the more so, as I could see more learned members of other small countries. Dr. Engineer and myself spoke on behalf of India.

After these preliminaries, and after delivering a short speech in Japanese and English, Dr. Miyagawa offered me his chair as Vice Chairman, and left as he was otherwise very busy. Three to four Interpreters were always kept ready, as the conference was being conducted in both languages, Japanese and English.

After discussing the itinerary of the Conference, and leaving everything to the Preparatory Committee, the first session terminated.

From the afternoon of the first day, we had right through a very busy programme starting from 9 a.m. and lasting till late at night. Factories, Health Centres, several Institutions offering medical facilities, and Farm Villages were visited during our visits to Tokyo, Nagoya, Kyoto, Nara and Osaka, the main industrial cities of Japan.

Eight leading factories were visited. Their plants, their medical welfare and health activities were studied. The factories visited were : 1. "Monopoly" concerned with the manufacture of tobacco products ; 2. Toyoto Motor Co. ; 3. Anjo Spinning Mills ; 4. Shinnzu Manufacturing Co. where microscopes and X'ray equipment are being manufactured ; 5. Takeda Pharmacentical Co., a very modern and neat works where there is a machine for manufacturing gelatin capsules one of the 14 in the world, and the only one in the East ; 7. Asahi Glass Co. A few small factories were also visited.

Hospitals visited were those attached to :—1. Fuji Electric Co. 2. Nagoya Railway Co. 3. Daido Steel Co. and regular hospitals : 1. Aichi National Hospital, 2. Todaiji Temple Orthopaedic Hospital, 3. Sozen-en Hospital and 4. Toshiba Rinkan Hospital.

Health Centres visited were : 1. Okazaki Health Centre, 2. Nihombashi Health Centre.

Medical Departments of Universities and Institutes visited were : 1. Nagoya University which was bombed during World War II, and is under reconstruction. 2. Kyoto University, 3. Nuclear Science Institute, Kyoto, 4. Institute for the Science of Labour, Tokyo, 5. National Institute of Public Health.

Other public utility concerns and hygienic centres visited were : 1. Jiyu-ga-Oka Public Apartments, 2. Koda Town Sanitary Facilities in Farm Villages, 3. Public Vocational Training Centre, 4. Public Beauty Culture & Cosmetic Training Centre, 5. Saitma Farm Village Prefecture, 6. Yodo-beshi Filter Plant.

List of Scientific Papers read during sessions & visits :

1. Working Conditions of Women Workers & their Welfare Facilities—Mr. Miyata ; 2. Result of the Family Planning Guidance for the Workers' Homes—Dr. Kusano, Head of the Fuji Elect. Co. Hospital ; 3. Prevention of Tuberculosis in the factory (Workshop Infection or Family Infection) Mr. Toyota, Head of the Sanitary Section of Toyota Motor Co. ; 4. Frequency of Silicosis among Ceramic Workers—Dr. Koinuma ; 5. Tuberculosis in Aichi Prefecture & its Prevention—Dr. Ogawa, Head of the Sanitary Department of Aichi Prefecture ; 6. State & Result of the Promotion of Health—Mr. Honda, Headman of Koda Village ; 7. State and the Decreasing Process of Beri-Beri Deaths in Japan—Dr. Nishio of Kyoto University ; 8. Counter Measures for the Health of Workers working in High Temperature - Dr. Yasui, Chief of the Sanitary Section Research Laboratory of Asahi Glass Co. Ltd ; 9. Poisoning of Carbon Monoxide—Dr. Toda, Chief of the Sanitary Section of Nihon Steel & Tube Co. Ltd. ; 10. Regulation of Silicosis—Dr. Kato, Chief of the Sanitary Section, Labour Ministry ; 11. Bodily Adaptation to Climatic Changes of the Season—Prof. Harashima, Keio University ; 12. Most

† Held in Japan (20th Oct. 1956 to 3rd Nov. 1956).

Complete Health Programme in the Automobile Industry —Dr. Masao Kashiwagi, Safety Health Director, Toyoto Motor Co.; 13. Improvement on Farmers' Living Standard—Mrs. Yamamoto, Chief of the Living Improvement Department, Ministry of Agriculture & Forestry, 14. State of Public Health in Japan—Head of the Public Health Bureau, Welfare Ministry; 15. Report on Japanese Medical Institutions in general—Bunji Kondoh; 16. Report on Status Quo of Preventive Medicine & Public Health Service in Japan—Ukichi Ishibashi; 17. Report on Health Insurance and General Practitioners; 18. Report on Physical Rehabilitations in Japan —Shotaro Mizuno; 19. Report on Health Services for Japanese Labourers—Yoshuki Ghosa; 20. Treatment and Prevention of Tuberculosis of Workers—Dr. Miyakawa; 21. Local Airconditioning with Well Water, Ice-cooled Water, Steam Jet Chilled Water in High Temperature Environments—Prof. M. T. Young, School of Public Health, Shanghai, 1st Medical College; 22. Studies on the Preparation of Fat for use in Intravenous Instillation—Dr. Miyagawa; 23. Effect of Taihumin—Dr. Miyagawa; 24. Colour Conditioning and Application of Germicidal Lamps—Dr. E. Takashi Azuma; 25. Meaning of "Alpha Index" in Infant Mortality Statistics– Dr. Hiroshi Maruyama, M.O., Tokyo; 26. Experimental Studies for evaluating the Harmfulness of Dusts—T. Saho and H. Oshai.

Delegates from every country spoke on the Health Services of each respective country. Indonesian Delegates read 2 papers, and Indian delegates spoke on the Health Services of India, and the Employees' State Insurance Scheme in India.

During our visits to all the factories and institutions mentioned earlier, we had ample scope to study the day to day life of the Japanese people, their ways, their uniformity and oneness, complete solidarity, their discipline, their hospitality, and their great advances in each and every sphere of Science and Industry. We had also good entertainment programmes. The Preparatory Committee had spared no pains in arranging everything. Dramas, sports programmes, and dinners and tea-parties in Japanese styles were all there.

The Preparatory Committee had also arranged visits to slum areas, labour houses, houses of the middle class, spas and public baths, health resorts and shopping centres. In a word we had very little of free time. Our accommodation all through was in all 1st class Western style hotels of the type of the Taj Mahal Hotel in Bombay, or even better.

Public Health Services: The Health of the people is under the Minister of Health & Welfare. 8·7 per cent of the total expenditure of the country is being spent by this ministry.

Health Centres: Health Centres, where mainly preventive work is done are being managed by Prefectural Bodies, Government and local Municipalities. They look after health, education, vital statistics, improvement of nutrition, food and environment sanitation, public health nursing, medical social service, maternal and child health, dental hygiene, laboratory tests, prevention of T.B. and venereal diseases, and other programmes for the promotion of health.

Population: Total population is 90 million (9 crores).

Birth Rate: Live birth rate has come down to 20 per thousand population, due to family planning, legalised abortions, and decreased marriages.

Death Rate: 7·8 per thousand population.

Rate of Increase in Population: 11·6 per thousand population.

Expectation of Life: This has risen due to excellent health measures. In males it has risen to 63·9 and in females to 68·4 years.

Deaths: Recent statistics show more deaths due to vascular lesions, malignant neoplasms, senility, heart disease, tuberculosis all forms, and suicides.

Hospital Beds: The total number of hospital beds in the country is 5·1 lakhs, proportion being 1 bed to 250 population, while in our country it is 1 to 3000 population, and in ESI Scheme 1 to 1500 which is likely to rise to 1 to 800 in the distant future.

National Health Survey: The Government of Japan has been conducting national health survey, family sickness survey, and mass radiography.

Doctors & Population: Total number of Doctors is 90,000, which works out to 1 Doctor to 1000 population. Every year 2,500 are being added. They are willing to come to other countries in exchange programmes.

Dentists: The total number is 29,000; that is, 1 to 3,000 population.

Nurses: Total No. is 1,10,000 which comes to 1 to 850 population. The number is higher than that of Doctors.

Social Insurance Schemes: Japan is the pioneer in Asian countries in this respect.

Health Insurance for General Workers has been in existence from 1922.

National Health Insurance for the rest of the public has been in existence from 1938.

These Schemes have become the most powerful protective measures for the nation. About 70 per cent of the population is covered by these schemes. About 95 per cent or more doctors are working in these schemes. Each one can select his own doctor.

In Employees' Health Insurance the Employers' contribution is 5% and that of the Employees 3%, and the rest of the expenses are financed by the Government. The benefits are :—1. All sorts of medical care, 2. Hospitalisation, if necessary, 3. Dental care, 4. Pharmaceutical medicines, 5. Monetary Benefits, 6. Sickness and Injury Allowances, 7. Delivery Expenses, 8. Maternity Allowances, 9. Child Nursing Allowances, 10. Spouse Delivery Expenses, 11. Funeral Expenses, 12. Dependants' Funeral Expenses.

Factory Medical Service is mainly first-aid and preventive measures. Due to the above measures mortality has come down. T.B. morbidity is 143 for 1 million, and T.B. mortality is 6·6 for 1 million. During the last 10 years mortality has been cut down to one-third.

The above is the short outline of the Health & Medical Care of the population of the country. Everything is properly planned and executed. Hospital buildings are not such imposing structures as we see in our country. Nevertheless they are well planned units

with gardens and lawns round about. Hospitals look overcrowded, but are very neat and clean, and a lot of gadgets are used to spare human labour.

The average earnings of a Worker and a Doctor are in no way more than in our country. Still they live in a better and uniform manner in simple modern style. Every one in Japan thinks of the country first rather than of one's own individual self.

The social, cultural and entertainment side of the programme of the conference consisted of various receptions, dinners and parties.

The end of the conference came on 3rd Nov., 56. Short speeches were made on the occasion and the following Proclamation about the future of the conference was signed :—

PROCLAMATION

"1. Modernisation is now proceeding in Asian countries. Under the circumstances, we, from seven Asian countries, are now holding the Asian Conference on Occupational Health in Japan.

Firstly we recognise that completion of national independence and our efforts towards our new construction are our common important subject.

2. We, then, recognise it as our important question of the moment, that in order to attain the objective of this great undertaking, we have to take appropriate preventive measures against various plagues and diseases still persisting stubbornly over a vast expanse of Asian countries and also against social and medical factors detrimental to health, thus emancipating Asian people from the shackles of unhappiness caused by sickness and poor health.

3. We also recognise that each country in Asia has natural, social, economic and cultural environment of its own but that, in spite of its individuality peculiar to each country, Asia as a whole has a common cultural inheritance and also that Asia has various similarities in social and economic realities.

In this sense it has been the most important achievement of the Asian Conference of Occupational Health that we have found ourselves confronting common problems.

4. We, furthermore, recognise that our ultimate aim is to promote the living standard of Asian peoples by stabilizing their lives and also by enhancing their productivity through the maintenance and promotion of their health and working capacity.

It follows, therefore, that we expect in a great measure that the Asian Conference of Occupational Health may in future concentrate its earnest efforts on the attainment of this final objective.

5. We recognise that in order to accomplish our great intrinsic aim in curing and preventing diseases, and in preserving and promoting the health of all Asian people, mutual friendship and co-operation with good will and faith in one another are the necessary elements and constitute the basis of bringing about happiness and prosperity of various Asian peoples. At the same time we believe that these are the best way to contribute to the welfare of mankind.

6. We hereby solemnly promise and proclaim that we render our whole-hearted co-operation for the attainment of the aforesaid aim in its future development of the Asian Conference of Occupational Health held in Tokyo this time.

In witness thereof, we, the undersigned, hereby affix our signatures on this document in Tokyo on the third day of the eleventh month of the year 1956—

Signed : Burma :—2 Delegates
Indonesia :—4 Delegates
India :—3 Delegates
Japan :—6 Delegates
Philippines :—6 Delegates
People's Republic of China :—5 Delegates
Thailand :—2 Delegates."

Then after a group photo we all parted.

The moving spirit of the Conference was one, namely the frail Dr. Geto Teruoka, whom we all named "Father of Industrial Medicine of Asia", just as we call our grand old man, Dr. H. P. Dastur, "Father of Industrial Medicine in Bombay". Both are identically frail, but overflowing with zeal to do the utmost for Occupational Health.

In all respects it was a most eventful and successful conference. The ultimate international, countrywise and local result of this conference is that the delegates who attended it will convince their people and their Governments that no country or State can afford to allow the working of factories without proper organised "Occupational Health Service" maintained on advanced scientific principles. The old and current slogan that "Factories cannot afford to have medical service" has got to change into "No factory can afford NOT to have Occupational Health Service on modern advanced scientific principles.

V ANNUAL CONVENTION OF THE BOMBAY BRANCH OF THE SOCIETY FOR THE STUDY OF INDUSTRIAL MEDICINE (INDIA)†

The Conference was inaugurated by Shri Yeshvantrao B. Chavan, Chief Minister, Bombay State, on the 27th April at the Taj Mahal Hotel. In course of his inaugural address he said that he was pleased with the aims and objects of the Society, and hoped that it would play a prominent role in industrialisation. We have made much progress in our own State and in other States in industrialisation; more industrialisation means more concentration of population at industrial centres and consequent increase in dangers to health. A well organised Society of Industrial Medicine could achieve much with research, and without research it will not be possible for future Societies of this kind to function. He believed that by participation in this Convention Employers and even Government would derive advantage, and so he wished the Society and the Convention every success.

† Held in Bombay on 27th & 28th April, 1957.

Dr. V. V. Kulkarni, President of the Bombay Branch, in the course of his presidential address hailed the ESI Scheme as the first step in the socialisation of medical service, and as a boon to workers, because in the pre-scheme days the majority of workers were getting only first aid service, but now on account of the scheme all are getting full fledged medical aid. The panel system is working satisfactorily, but there is a serious drawback in as much as the panel doctor is not familiar with the factory environments of his patients. He has no idea of when, where and how accidents would occur, nor is he able to determine the root cause of diseases. Therefore Factory Medical officers are necessary, but Employers have discharged them. The Society through correspondence with the Central Labour Ministry convinced the Ministry in regard to the necessity of the continuance of factory medical services, Government issued a circular to Employers impressing upon them that factory medical services are necessary; but the circular has not had the desired effect. The 2nd Five Year Plan envisages more industrialisation and the employment of modern methods of production, such as the employment of radio-active materials, which involve new hazards. It is therefore necessary that the doctor should be acquainted thoroughly with the methods and the hazards they involve, and so a factory industrial medical service with specially trained doctors becomes most essential. There must be a post-graduate course in Industrial Health and Hygiene, and efficient Industrial Health Service must be established in all factories in the country which should carry out the following functions: 1. Pre-employment examination; 2. Periodical examination; 3. Preventive treatment; 4. Instruction and Education in sanitary habits; and 5. Rehabilitation of the disabled.

Messages of goodwill received from several eminent persons were read, and a vote of thanks was propored to the Chief Minister. The day's function terminated with an "At Home".

Scientific Session—The 2nd Day of the Convention was held on 28th April 1957 at the Main Lecture Theatre of the Gordhandas Sunderdas Medical College, Parel, Bombay-12.

The undermentioned papers were read, and the following talks delivered at the morning's session of the day:

1. A paper on Tuberculosis in Industry in Bombay by Dr. Purshottam; 2. A paper on Impressions of the 1st Asian Conference on Occupational Health, Japan by Dr. A. D. Daftary; 3. A talk on Better Health through Factory Medical Service by Dr. B. Banerji; 4. A talk on Mass Immunisation in Industry by Dr. D. D. Banker, 5. A paper on Placement of the Visually Handicapped in Industry by Dr. Y. K. C. Pandit.

In the afternoon session there was a panel discussion on the subject "Treatment under the Employees' State Insurance Scheme" Dr. S. K. Das, Administrative Medical Officer, ESI scheme, presided.

* * * * *

After the panel discussion the annual general meeting of the Bombay Branch was held, in the course of which office-bearers for the next year were elected.

NOTES AND NEWS

Hunterian Professorship for Dr. A. K. Basu

The Royal College of Surgeons, England, has awarded the Hunterian professorship in that institution to Dr. A. K. Basu, Director, Department of Surgery, Institute of Post-Graduate Medical Education and Research, Calcutta.

Dr. A. K. Saha, Professor of Surgery, Nilratan Sircar Medical College, Calcutta, another recipient of this professorship, has already left for U.K. Prof. Basu is expected to leave early in 1958.

Epidemic Sweeps Round The World

Asian influenza, which has swept round the world in less than five months, has reached its peak in Chile with an estimated 200,000 cases, it was announced at W.H.O. headquarters at Geneva on 9 August, 1957.

In New Zealand, the disease is spreading rapidly in Wellington and other towns, and according to a cable received, the virus has been identified as of the Asian type.

A cabled report received from South Africa stated that the virus has been definitely identified as of the Asian type there. Some 50,000 cases of the disease, affecting mainly African miners were reported a short time ago. Most of the men affected are already back at work.

The disease is also on the increase in Egypt, the Sudan and Korea.

In U.S.A., outbreaks of the disease have been reported in 15 summer camps in eight countries.

The Department of the Army reported an outbreak of some 300 cases of influenza on board the U.S.S. Patch between July 9 and 23. A further 30 cases were reported from the personnel of San Diego (California) serving at a naval station in Texas.

In the Netherlands, Asian influenza virus has been isolated from three cases in an army unit in Oasendrecht, and a more or less closed community in Assen has reported 50 cases.

An outbreak has also been reported from the Fiji islands.

Gifts of Medicines and Milk Powder by Patna Rotary Club

The Patna Rotary Club gave valuable gifts of several cases of medicines and milk powder etc. to Sri Birchand Patel, Health and Food Minister at a special function held recently at the Bankipore Club. Sri U. K. Sinha, President of the Patna Rotary Club while making the present told the Minister how the Rotarians whose one motto in life was "service before self", contributed for making a present of the gifts to the Minister because of the cholera and influenza epidemics both of which were present at Patna.

Sri Birchand Patel, Health Minister accepting the gifts said that Patna Rotary Club was perhaps the first non-official institution to have contributed for such a noble cause. He did not attach any importance to the value of the articles presented, but he valued very dearly the spirit behind such noble gifts.

Kurnool Medical College

The Andhra Pradesh Government have sanctioned the construction of a clinical lecture hall cum laboratory and a mortuary for the Kurnool Medical College at a total cost of about Rs. 1,50,000. The work on these buildings, which would be inside the Kurnool General Hospital compound adjacent to the College, will be taken up shortly.

The pre-clinical courses for the first batch of students have commenced in the college. Scientific equipment and furniture worth rupees four lakhs have so far been received. It is expected that equipment costing about rupees three lakhs more will be received before the end of this year, well in time before the commencement of the clinical courses in January 1958.

Medical College in Kanpur

Dr. Sampurnanand formally declared open U.P.'s third medical college on 1-8-57.

The college is named after the late Ganesh Shanker Vidyarthi who laid down his life in the cause of communal harmony in 1931.

Dr. Sampurnanand stressed the need for opening more hospitals and said that they should be brought within the reach of every citizen. The number of medical colleges had also been increased.

Mr. Hukum Singh, Minister of Health, said that a sum of over Rs. 2 crores had been earmarked for the college in the second Plan..

Forensic Institute Ready for Classes

The Central Forensic Institute, at 30 Gorachand Road, Calcutta, is now ready to function with its museums, laboratories and libraries. The Institute authorities are awaiting orders from the Central Intelligence Bureau in New Delhi to hold classes.

The first of its kind in India, the Institute will give a three-month course of training, three or four times a year, to officers who have already been in the force for several years in advanced technique of detection. It has three independent sections, the Central Detective Training School, Finger Print Bureau, and Forensic Laboratory. Each section has its own museum and laboratory.

To begin with, the Institute will admit 30 officers (who have already been selected from different States) at a time. A building for the residential accommodation of police officers during their training period has also been rented. The house is a minute's walk from the Institute.

The Central Detective Training School, of which Mr. T. Ramanujan is the principal, has six other experienced police officers on the teaching staff. Most of the lecturers in this section of the Institute as well as in the other two sections have received advanced training in detection in Scotland Yard, France, Germany and in other European countries.

Besides the laboratories and museums, the Institute is equipped with a cinema hall where documentaries will be shown. A hall has been reserved for discussions between trainers and trainees on subjects relating to crime.

A medico-legal museum, attached to the C.D.T.S. on the ground floor of the Institute's building, has on display almost all kinds of country-made firearms used by criminals in different States.

The Forensic Science Laboratory consists of four departments—physics, chemistry, biology and ballistics. Dr. N. K. Ayyangar is the director of this section.

100-Bed Ward for Tuberculosis Patients

If the question of the recurring expenditure is satisfactorily settled, Delhi will have a people's ward for T.B. patients constructed out of the funds offered by the Delhi State T.B. Association.

The offer to construct a 100-bed ward was made to the Chief Commissioner recently when a deputation including Dr. Yudhvir Singh, president, Delhi State T.B. Association, met him. The funds will come from the sale proceeds of T.B. Seals in Delhi Union territory.

The Chief Commissioner said the only hitch in accepting the offer was the recurring expenditure of Rs. 2,00,000. He promised to look into the matter and see if any provision could be made.

Training Nurses in Public Health

A scheme for the "integration of Public Health in the Basic Course of Nursing" was inaugurated by the State Health Minister, Madras, at the Stanley Medical College, on 27-7-57. The primary aim of the scheme is to train all nurses, not only in sick nursing, as at present, but also in public health nursing as well, so that the preventive aspect of medicine too would receive adequate attention. The centre at Stanley Medical College, the first such centre in the State, is one of ten in the country chosen under a pilot scheme framed for the purpose by the Government of India.

Lt. Col. Sangham Lal, Director of Medical Services, who presided over the meeting, said that the Government of Madras had sanctioned the opening of 84 Rural Family Planning centres in the State and appealed to married nurses to come forward and take charge of them.

W. Bengal Needs 1,700 Beds for Cases of Mental Disease

The number of mental disease cases in West Bengal has been steadily increasing, according to the Director of Health Services, West Bengal. Judging by the number of applications annually received by the Health Directorate for admission of patients to mental hospitals, West Bengal needs 1,700 beds for mental patients. Of every 1,000 people in the State, 0·05 needs hospitalisation for mental disorders.

The Government has already acquired 85 acres of land for construction of a mental hospital building in Berhampur (Murshidabad). The site is likely to be extended by 20 acres more. To begin with, the hospital will have 800 beds. The total capital expenditure, including the equipment, is estimated at Rs. 8 million.

Besides this proposed hospital, the Government also needs an asylum to accommodate nearly 600 mental patients feared to be incurable cases. Of these 300 are now in jails, and the rest in hospitals in Ranchi.

Midnapore I.M.A. Building

Foundation-stone laying ceremony of the building of the Midnapore branch of I.M.A. was held on July 30 last. Dr. Anathbandhu Roy, Minister of State for Health, laid the foundation stone. Dr. U. Sen Gupta, President, Midnapore branch, welcomed the guests.

Among those who spoke on the occasion were Dr. K. C. Sarvadhikari, Dr. R. K. Barua, Sri S. Banerjee, Sm. Anjali Khan, M.L.A. and Sri D. N. Banerjee, District Magistrate.

Dr. N. Munshi, President, I.M.A., West Bengal, who presided over the function, offered his congratulations to the Midnapore branch.

Grant to Red Cross Society

The Government of India have sanctioned a grant of Rs. 2·5 lakhs to the Indian Red Cross Society in connection with the International Red Cross Conference to be held in New Delhi from October 28.

CORRESPONDENCE

The Editor is not responsible for the views expressed by correspondents

"Tropical Eosinophilia"

SIR,—With reference to my suggestion about the correct nomenclature of the syndrome known as Tropical Eosinophilia published in the JIMA of 16-1-57, I find that only one disapproval from Dr. S. N. Sengupta has come out in the last 10 issues. As silence is half consent and being sure that every colleague of mine is as much interested in the advancement of medicine as I and Dr. Sen Gupta are, we can safely assume that the new term suggested by me has met with their approval. In private conversation, some other colleagues of mine have also liked this new term. Let me now answer the arguments raised against it. (a) As my colleague himself admits that its manifestations are in the majority of cases (as implied by the words "Not always") respiratory. It is logical that exceptions do not prove the rule. So a thing is taken as true if it is so in the majority of cases. Exceptions are never taken into account. (b) From what I know, there are three stages in this disease (i) Prodromal, (ii) Bronchitic, (iii) Asthmatic. The bronchitic stage is the one we usually come across in the majority of cases. Apart from these facts, 'Eosinophilia' is only a laboratory finding. The term 'Eosinophilic bronchitis' besides indicating an increase of eosinophiles, gives a good mental picture of its symptomatology. So why should we not adopt a better term till more is known about its pathology etc. I am etc.

Calcutta. K. K. BAJAJ.

* * * * *

SIR,—I thank you very much for forwarding further comments of Dr. Bajaj with his arguments in support of his proposed nomenclature of the syndrome of Tropical Eosinophilia. Unfortunately, his arguments are so unconvincing that I find nothing to revise the opinion expressed in my previous communication (JIMA, April 16, 1957) and have some comments to make.

The opening lines of Dr. Bajaj's arguments are amusing. Silence may indicate half consent in matter of love (I am not sure), but I have no idea that "one who is interested in the advancement of medicine" can "safely assume" its significance so seriously in the matter of science (medicine is a science, no doubt). In the thrill of winning half consent of the readers of the journal and perhaps full consent of his "other colleagues" Dr. Bajaj seems to forget that my total disapproval of his suggestion received greater consent, if his contention were true.

The reply of Dr. Bajaj is no less interesting. While agreeing fully with him that the manifestation of Tropical Eosinophilia is, in the majority, respiratory in nature, I never knew that there was only one respiratory disease called bronchitis, and even if it was so, the pathological lesion of tropical eosinophilia, whatever little is known about it, is by no means that of bronchitis, as I mentioned before. I am sure Dr. Bajaj will not want me to believe that bronchitis produces radiological shadows similar to those seen in tropical eosinophilia. I wonder if he thinks that only a few symptoms and signs constitute a disease, and if he would call any thirst and polyuria, diabetes mellitus, for instance.

Most of the systemic diseases with specific pathological changes in the body have variable symptomatology and although "exceptions do not prove the rule" (I do not know what it means), in medicine the knowledge of the exceptions is essential for knowing the disease. It is a pity that the science of medicine does not always provide a simplified made-to-order "mental picture" of symptomatology of all diseases.

Eosinophilia is "only a laboratory finding", according to Dr. Bajaj, although he knows that the only *constant* feature is this laboratory finding. It will be of interest to know if he holds similar views in regard to leukaemias, which, in the majority, present with anaemia and enlargement of spleen (without considering "exceptions"). We still call them leukaemias.

Dr. Bajaj's interest in medicine, I am sure, will enable him to find a suitable title for the disease before long, if only he is a bit more patient and devotes sufficient time to find out the disease and not the name. The name will suggest itself when the disease is known. I am etc.

Calcutta. S. N. SEN GUPTA.

REVIEWS

Official History of the Indian Armed Forces in the Second World War 1939-45—Medical Services—Administration—Edited by B. L. Raina, LT.-COL., A.M.C. Published 1953 by the Combined Inter-Services Historical Section, India and Pakistan (Director—Bisheshwar Prasad, D.LITT.). Board-bound, 679 pages, 9¼" × 6¼". Price Rs. 30/-.

After the conclusion of World War II, the Historical Section was established in 1946 for the purpose of recording the part played by the armed forces of pre-partition India in the various theatres of the Second World War. Even after the partition of India, the two Dominions, India and Pakistan, agreed to maintain the Historical Section as a joint organisation. The present volume is the first of a series dealing with the medical aspect of the activities of the Armed Forces of undivided India in the Second World War. For the first time India has compiled an exhaustive history of the part played by her medical services in war. This volume describes in detail how India managed to expand her medical services to more than ten times their original strength. From small beginnings, by October 1945, 1163 medical units had been raised and nearly 200,000 hospital beds equipped in India, about five million casualties being treated in these hospitals. This book shows the details of this stupendous task well achieved, and makes the reading of the book both fascinating and highly instructive not only to the medical profession in general but also to social workers and statesmen who may well utilise this vast knowledge and experience for future improvements—both for the armed forces and the civilians.

Pharmacognosy of Ayurvedic Drugs (Kerala)—By K. Narayana Aiyar, M.A., A. N. Namboodiri, M.SC. and M. Kolammal, M.SC. Series 1, Number 3. Published in 1957, by The Central Research Institute, University of Travancore, Trivandrum (Kerala), India. Pp. 109, 9¼" × 7¼".

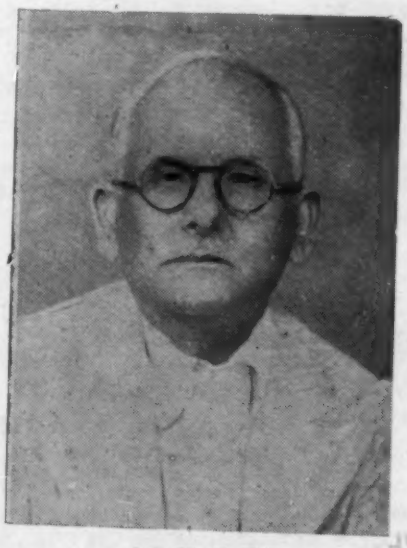
This is a very commendable monograph containing descriptions of 20 Indian indigenous plants of medicinal value, divided into eleven groups. The well-printed and agreeable-reading text describes the work carried out with the co-operation and collaboration of the members of the Pharmacognosy Committee appointed by the University of Travancore. A large number of illustrations, many in colour, have made this book of much use and benefit to the worker in this subject, as these pictures and descriptions would naturally be of great help to others in identifying the plants described for purposes of further study in other centres. A further useful point about these illustrations is the depiction of the inch-scale alongside the illustration of the plant. This book should prove informative and useful to all workers in the field of pharmacognosy of Ayurvedic plants of India.

OBITUARY

Dr. Harendra Chandra Sen, M.B.

Dr. Harendra Chandra Sen, M.B., a private medical and ophthalmic practitioner at Nabadwip, West Bengal, died suddenly of coronary thrombosis on 23 June 1957.

Dr. Sen was born in a respectable family of Naria, Faridpur in 1892. In 1914 he passed the L.M.P. examination from the Campbell Medical School. Later, he served as a medical officer under the Bengal Government in various jails and sub-jails.



DR. H. C. SEN.

Dr. Sen graduated from the Calcutta Medical College in 1921, and began to practise in the town of Madaripur in Faridpur. He earned good reputation as a physician. After the partition of Bengal he came to Nabadwip in 1947 and started practice.

Dr. Sen always took keen interest in medical politics. He was a member of the Indian Medical Association and the Vice-president of Nabadwip branch of I.M.A.

May his soul rest in peace!

A CORRECTION

Vol. 29, No. 3, August 1, 1957, p. 131, col. 2, line 12 from below: *In place of* ". . . . designed as 'illustrations' " *please read* ". . . . designated as 'illustrations' ".

4 Specialities

Liv. 52

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SUPPLEMENT
Journal of the Indian Medical Association

VOL. 29, No. 5 CALCUTTA SEPTEMBER 1, 1957

X GUJARAT AND SAURASHTRA PROVINCIAL MEDICAL CONFERENCE, 1957, JUNAGADH

Under the auspices of Gujarat and Saurashtra Branch of I.M.A., the 10th Conference of Medical Men of Gujarat and Saurashtra was held at Junagadh on 3, 4, 5 May 1957, under the presidentship of Dr. G. B. Mankad of Ahmedabad. Nearly 300 medical men from different parts of Gujarat and Saurashtra attended the conference. Dr. Jivraj Mehta, one of the past Presidents of I.M.A. and Finance Minister, Bombay State, inaugurated the conference. Dr. C. S Thakkar, the President of I.M.A. inaugurated the Scientific Session of the conference, while Dr. I. B. Amin, Director, Alembic Chemical Works, Baroda opened the Pharmaceutical Exhibition. The conference was held in the spacious premises of Shri Bahaudin College, one of the oldest teaching institutes in Saurashtra and all its deliberations took place in the assembly hall of the college. The Scientific Session held discussions on three main subjects—Head Injury, Gastro-Enteritis in children and Dysmenorrhoea. There were about a dozen short papers including discussions on T.B. Meningitis. The delegates and visitors were housed in the college campus, and they had sufficient opportunities for sight seeing particularly the Girnar hill, Gir forest (abode of Gir lions) and Somnath Temple situated on the west coast of Saurashtra, the local Zoo and the ancient fort and historical stone inscriptions of the days of king Ashoka. To refresh the delegates and visitors after the strenuous sitting during the days, variety entertainment programmes were arranged through the courtesy of Saurashtra Fine Art Academy.

Dr. R. P. Vyas, the chairman of the Reception Committee, extended hearty welcome to the guests and delegates. He gave a detailed description of the town of Junagadh past and present and referred to the existing medical facilities, as also to the medical problems which required attention. He said,

"With all the good and great facilities in the civil hospitals and dispensaries for treatment of the disease afflicted persons, one still has scope to pause and ponder. The net work of civil hospitals and dispensaries is brimming with excellent clinical material so very essention for research. A large number of cases of common diseases, and quite a few cases of rare type, continually pass though these institutions. The opportunity to probe into the fathoms of these diseases is generally lost due to over burden of administrative and other routine type of work. A willing mind in conquest of truth, regarding facts and nature of diseases, needs to be given opportunity to probe into a multiple of clinical material which is lying in abundance.

A recurring incidence of great anxiety and suspense in every family is that of confinement and labour. This is particularly so in rural areas where the whole important affair is managed either by the elderly lady of the house, or by the local untrained midwife, the only qualification of whom is her seniority in her self selected profession.

This deplorable condition can at least be partly improved if a number of ladies are trained up in midwifery and induced to settle in rural areas. In Saurashtra, there was difficulty in securing sufficient number of pupil candidates when training schools were first opened. Fortunately, as time passes better and better response is being received.

Besides these, there are other problems which need consideration by our profession viz: improvement of health education of people in rural areas, including more medical men to go to rural areas, acquainting people with importance of balanced diet and family planning; and the importance of preserving maternal and child health. At the present stage, when the country has emerged out of a gigantic revolution, and is setting firm steps towards better evolution, all these problems need more than ordinary consideration.

The economic prosperity of a country depends upon the output capacity of its population, which, in turn throws burden of some responsibility on the medical men of the country. The greater the effort on the part of the medical profession to keep the population free from ailments, the greater the preservation of national health, and greater the progress of the nation. The nation looks upon the medical profession to serve it with all the ability, enthusiasm and spirit of sacrifice.

DR. R. P. VYAS,
CHAIRMAN, RECEPTION COMMITTEE.

In inaugurating the conference, Dr. Jivraj N. Mehta discussed at length the problem of indigenous medicine in an objective and unbiased manner. He advised to take into account the following in formulating the policy in India towards the indigenous systems:

1. That whatever is useful and valuable in the indigenous systems should be carefully sifted through scientific methods of study and brought over to modern medicine.

2. That training in modern medicine should be compulsory for all who are permitted to practise medicine after an appointed date, as India cannot afford to have a less qualified body of doctors than other advanced countries of the world; and until we are able to provide facilities for training in modern medicine of the required number of medical practitioners arrangements should be made in Ayurvedic teaching institutions for the instruction of the students under training in those institutions, for instruction in the actual anatomy of the human body, in Human Physiology as has developed under modern experimental methods and in Social and Preventive Medicine, a subject on which increasing emphasis is now being placed in the instruction of students undergoing courses of studies in modern medicine.

3. That modern medicine should be the basis of the national health services in the country;

4. That practitioners of indigenous systems should be registered in all the States and that, after an appointed date, only those who are registered should be permitted to practise; and

5. That steps should be taken, through appropriate legislation if necessary, to promote a uniform policy throughout India in regard to these systems of medicine.

In stressing the need for State Medical Care to replace private practice as a long-term measure, he said "The need for a medical care programme, which is comprehensive enough to meet the needs of our people irrespective of their ability to pay, in full, for the necessary services, will hardly be disputed by any one. Adequate health protection for all is in the interests of the individual and of the State, and the provision of the necessary services, sufficient in quality and quantity, is an obligation which no Government, that works towards the socialist pattern of society, can afford to ignore. Medical service, both for diagnostic and treatment purposes, has become so expensive and is growing to be even more so as the years go by that only the State can hope to provide the necessary facilities on a progressively increasing scale to satisfy the needs of the people. This is the reason why I plead that our ultimate goal should be for the Public Authority, including the Central and State Governments and local bodies to assume this responsibility and to build up, in an integrated manner, curative and preventive health services so as to avoid unnecessary overlapping and waste of public funds." He also pleaded for State help in Medical education and said "I do hope that the pace of progress in implementing the scheme of fulltime units in non-clinical departments in all medical colleges will be accelerated and that similar units will be extended to the clinical departments also." He also discussed the usefulness of the development of pharmaceutical industry in the country.

Dr. C. S. Thakar, President, Indian Medical Association inaugurated the Scientific Session of the Conference. In his speech he said :

"Scientific symposia have a very great educative value. Amongst you I see a large number of young and old general practitioners who have come here from long distances and at great inconvenience and sacrifice to attend this Conference and reap the benefit of newer scientific knowledge from the discussions and debates which will presently ensue. It must be a fact patent to all of you that the diffusion of upto-date and accurate knowledge enhances the efficiency of medical practice. There are several useful measures devised to impart to the general practitioners with latest trends in scientific medicine. Refresher courses that are arranged from time to time by our local branches with the welcome co-operating of highly qualified medical men are of great assistance in achieving this purpose.

It is a well appreciated fact that all sciences especially medical science must possess some essential characters. Medical knowledge that we possess must be of a clear cut definitive character. It must be capable of extension and improvement from time to time and the proud possessor of that knowledge must be ever on the alert to devise and practice it in channels and newer adaptations. Critical powers of observation are always an important and requisite asset for a medical man. From the moment a patient enters his clinic he must be alert and observe his expression, his gait, his mannerisms and his general behaviour. I bring to your mind the famous creation of Connan Doyle, "Sherlock Homes" the great detective who at a glance could see farther than most of us, modelled upon his great teacher in Edinburgh Infirmary, Dr. John Bell. It is also very essential that we medical men should take to making notes of our findings with regard to the patient under our care. This healthy practice if pursued will result in bringing to the aid of the physician many points of interest that will lead him to a correct diagnosis and proper treatment in future emergencies. It is often argued that medical men how much so ever keen and willing to conduct research are unable to follow their research pursuits in the absence of laboratory facilities and necessary costly equipments. My answer is when there is a will there is a way. Mackenzie (later Sir John Mackenzie) was rural practitioner in a remote town away from the bustle of city life, but he was very observant and keen as master on all his work. Slowly and laboriously he devised and built up his polygraph for recording the characters of pulse and offered to the medical scientific world his tracings and findings of the variations of pulse in various cardiac conditions. On the basis of his rudimentary polygraph has been developed the Electrocardiograph the instrument which guides and regulates our modern treatment of the diseases of the heart.

We now possess many, perhaps too many clinical and pathological aids. How shall we apply the plethora of knowledge we possess with benefit to the people under our care? This is a problem that should be one of considerable anxiety to the medical practitioner. First and foremost should come accurate diagnosis of the malady such a person suffers from. We are today happily placed with regard to the investigations and diagnosis of all pathological conditions we have to deal with. Therefore we should call for necessary diagnostic aids to augment our clinical knowledge. We must first of all study the clinical aspects of the case that comes to us in all its bearings. Next, we should call for necessary investigations to assist us. But we must not in our anxiety to form a correct diagnosis call for a superfinity of investigations because they harass the patient and add to the cost of treatment.

I regret to have to bring to your notice the grievous tendency to prescribe a multiplicity of drugs. This tendency may be attributed in some cases to employ specific drugs in the hope that they would prove of miraculous benefit. Yes, our modern antibiotics and mycins are drugs the like of which the medical world has not yet come across ever since the dawn of history, but we must not loss sight of the fact that we are slowly coming across resistance phenomena and side-effects after a prolonged use of even standard doses of these powerful drugs. Under these circumstances, may I appeal to my friends in the house to tread cautiously, ever vigilant, whenever your patients require the administration of these drugs. Mind you, I do not caution you against their use whenever necessary. These weapons against disease are legitimate in our practice but their abuse and over prescription in the hope that a random shot may succeed, is gross and unfair.

I think I have given you some insight into the way some aspects of our every day medical practice should be conducted. Now there await you very interesting discussions on medical, surgical and gynaecological subjects and I have great pleasure in inaugurating the Scientific Session with the earnest hope that we all, you and I, will profit by the learned debates that will ensue."

In opening the Scientific Exhibition, Dr. Indubhai B. Amin said,

"So far as the importance and necessity of such exhibitions are concerned, I think it cannot be over emphasised. Besides other advantages, they serve the useful purpose of acquainting the medical profession with new drugs and pharmaceutical products and with recent developments in the pharmaceutical and allied fields. They also function as a valuable link of bringing together the medical and pharmaceutical professions.

The medical profession and pharmaceutical profession are very much inter-connected, inter-dependent and inter-related. They must go hand in hand for mutual growth, development and progress, and therefore it is quite essential that both the professions should work in close co-operation, co-ordination and harmony. In brief, they can be described as complementary to each other.

On this occasion, I would like to speak a few words about the pharmaceutical industry in India. The pharmaceutical industry in India had had to pass through many vicissitudes and ordeals during the alien rule which is but natural. But even today it has to face tremendous difficulties and handicaps. Very often many important basic materials are not readily and easily available. The same condition prevails with regard to scientific apparatus and specialised equipment such as glass-lined equipment, commercial air-conditioners etc. But gradually with the implementation of the Second Five Year Plan, I hope, the difficulties will be eased to a great extent. I am happy to say that inspite of many odds, the Indian pharmaceutical industry has made remarkable progress during the recent years, of course with the help of the Indian medical profession. But it needs in still greater measure, the active and sympathetic support of all our medical friends, which it certainly deserves. Gradually and steadily it is progressing from one mile-stone to another, and tries its best to supply the needs of the country as far as possible.

Even though our pharmaceutical industry is now fairly well developed, we are still dependent upon foreign countries for the supply of many important drugs and medicines. We are sending away crores of rupees every year for the purchase of such materials. This means huge economic drain which adversely affects our foreign exchange balances. To give you some idea, I am quoting here figures to the total value of imports of drugs and medicines in terms of rupees from 1950 to 1955.

1950-51	...	10 crores.
1951-52	...	15 crores.
1952-53	...	11 crores.
1953-54	...	12 crores.
1954-55	...	13 crores.

If we want to stop this economic bleeding of the country, we must make determined, concerted and all out efforts to make India self-supporting in this sphere. If we all, the public, profession and Government lend our helping hand to this important and vital industry, the day is not far off when India will completely become self-sufficient in respect of drugs, chemicals and pharmaceuticals."

Dr. G. B. Mankad, the president of the conference in his presidential address said,

"Each of us, besides having interest in the healing of the wounded and tending the sick, is affected by and has concern in the social, political and economical atmosphere nation-wide or more aptly world-wide. We have our dealings with them day in and day out. We can legitimately demand that our voice should count in these dealings and the demand will be accepted if you could make your voice spread to the society, to the government, to the international organisations like W.H.O. i.e. wherever it is required. We have in the I.M.A. our mouth-piece . This mouth-piece is lacking in a properly fitting loud speaker as you will realise when I tell you that only 18,000 doctors are registered as members of the I.M.A. i.e. 75 per cent of our

DR G. B. MANKAD,
THE PRESIDENT OF THE CONFERENCE.

70,000 medical men are keeping away from the All India institution through which our voice could spread around. The I.M.A. is doing good work. It has good potential capacity for work and to turn the potential energy of the I.M.A. into kinetic is in the hands of over 50,000 qualified medical practitioners of India.

We are aware that on many occasions the I.M.A. is not consulted, not taken into confidence, and its opinion is not considered by the society or the state. We have, through the I.M.A. to ventilate our opinion in matters like :—1. Medical education, 2. Control of Epidemics, 3. Drug act, 4. Medical Council Bill, 5. Nutrition of the people, 6. Prohibition, 7. Prevention of diseases like Tuberculosis, Leprosy etc., 8. Atom Bomb Tests, Radio active Dust affecting health and life, 9. Use of Atomic Energy as an Agent to advance health and industry and man many such matters.

We can through the intermediary of our Association express our opinion, vindicate our rights if they are encroached upon, etc., etc.

The efforts of the I.M.A. to maintain the status and position of our profession could bear fruit in proportion to the strength behind I.M.A. of a long list of its members.

Every doctor, who is a member of I.M.A. cannot serve the profession better than by inducing others to be registered in the I.M.A. Any doctor who is not a member of the I.M.A. cannot serve his own interests better than by enlisting himself as a member of the I.M.A.

PRACTITIONERS AND E. S. I.

Medical care of the suffering individuals in the community at large are as essential necessaries of life as food, shelter, clothing etc.

E. S. I. in as much as it is meant to fulfil such a need is truly a measure of social welfare and in near future a very large part of or even the whole population will be covered under the Health Insurance Service—and this will be a welcome and desirable state of affairs.

Which of the two viz. the panel or service system is suitable to be implemented and how to meet the cost of this amenity are problems for discussion.

The urge of voluntary labour, the possibility of creating fellow feeling, the feature of choice of his doctor

by the patient, maintenance of doctor-patient-relations are the advantages of the panel pattern for which service pattern has limited scope.

Experience of both these systems gained up-to-date weights in favour of the panel though each has its own advantages and disadvantages.

The cost problem is not easy of solution. Following are some ways for consideration.

1. Money should be spent only for those who need medical amenities and not for those who can afford the expenses easily.

2. Repetitions of clinical, laboratory, radiological and such other investigations in respect of the same case of some 'affluent' and/or 'influential' patients should be discouraged on ethical grounds by the doctors.

3. Health measures and immunologic therapy for diseases are to be preferentially instituted as routine by every practitioner and thus the expenses of costly curative therapy may be saved.

Educating public opinion about prophylactic measures by inoculations against Typhoid, Tuberculosis, Diphtheria, Tetanus, Cholera and such other preventible diseases is necessary.

The family doctor when called upon to treat a case of such disease, should inoculate or vaccinate the contacts.

Such practice will effect a good saving of money and will reduce anxiety, and strain of illness, reduce the number of lost man-hours of wages of the relatives of those who, but for the prophylaxis should have contracted the illness.

4. Another leak requires to be stopped that is indiscriminate and liberal use of :—(i) Antibiotics, (ii) Vitamins, (iii) Tonics, (iv) Certain other new drugs whose efficacy is yet unproven.

Many antibiotics are dubbed in one prescription because specifically indicated ones the prescriber does not know.

Vitamins, often in large doses are prescribed as fashionable ingredients in the consulting practice.

Expensive tonics are offered to convalescents, seniles and preseniles where inexpensive diet formulae should have done better.

To put these methods of economising the expenses under way is a function, a duty and a responsibility of the doctor.

The Ayurveda

The impartial encouragement to both the ancient Ayurveda and the modern Scientific System of Medicine by the State of Saurashtra is conspicious. The Unani and Homoeopathic systems have also received recognition here.

One can understand how and why language, politics, culture and government are different in different countries. But science knows no national or geographical frontiers, we have nothing like Swiss chemistry or American physics. Medicine is a science, it is not a language or culture and Ayurveda is science of medicine. It should not be there along with three other systems, an anomaly prevalent in India only. Science of Medicine should be one World-Medicine, why can we not lift up our Ayurveda so that it receives world recognition?

There is in the womb of future one international World Government of which the U.N.O. and W.H.O. are the embryonic manifestations. Such a World-Government pre-supposes one world culture and one world language. H. H. Shankaracharya believes that if the dream of one world culture and language is realised that culture will be the Sanskrit culture which is suited to all times and climes and which is capable of elevating humanity to the heights of ethics, morality and spiritualism. Ayurveda represents Sanskrit culture. It is in Sanskrit language. It is fit to be an all-world medicine. The Ayurveda with its original composition,

The Conference in Session.

has its growth stunted due to lack of its systematic study as a tree planted with healthy seeds fails to grow when reared by inefficient and inattentive 'Mali'.

To advance the cause of Ayurveda, an impartial and studious scientific investigation in the subtleties of this ancient system is to be conducted by men who are above preferences, prejudices and passionate patriotism. In such investigation lies the best and much needed effort for the advancement of Ayurveda which should be our first concern. The practice of this system should follow its uplift at a later date. There are some Vaidyas who are inclined to think that institutions should be started for training in and practice of what they call pure Ayurveda, i.e. Ayurvevda uncontaminated by the Modern Scientific Medicine. Such practice is likely to entail undesirable consequence to the health of the people and to bring discredit to the science for the fault of the scientist. A better method conductive to the uplift of Ayurveda may be suggested.

A Central Co-ordinating Board fills up 200 well paid posts by top ranking Vaidyas and doctors who are zealous for knowledge and devoted to science. In groups of 10 each, half the number being Vaidyas and the other half being doctors they work at different centres. They engage in research in different sections of Ayurveda, at intervals they meet in conference, discuss their work, observations, experimentations, interpretations and their conclusions are co-related. In a few years' time a considerable depth in the study of Ayurveda will be negotiated. This team of workers should be at liberty to fill up any lacunae noticed in the Ayurveda by contributions from other sciences and so to evolve the enriched Ayurveda to the state of an agreed Science. After 5 years of assiduous work, this team will be a rich source of teachers to be sent out in the institutions designed to train young men in Ayurveda for 5 years; in another 10 years, during which the research continues the training is systematised and the reformed Ayurveda or better re-incarnated Ayurveda extends its frontiers. The expense of implementing this scheme will not exceed the budget provision of about 6 crores and the gains may exceed the expectations.

PRACTITIONERS AND PRACTICE

Most of us here are engaged as practitioners. The manner and the method of our practice are often subject to unfair criticisms by the lay public who do not realise how difficult it should be for the doctors whose work for the suffering individuals compels them to keep ready at all hours of the day to rush whenever called. The Gumasta Act which spares the compounders from strain of over work is not applicable to the doctors whose hours of sleep and rest can be encroached on to meet an emergency, real or imaginary. The accusation of lack of sense of duty, often made against the medical practitioners frequently made is a result of ignorance or incomplete information about the circumstances. The profession bears all this without resenting, leaving the critics to say what they wish to.

Time has now come when the practice should be oriented to suit the changing circumstances. Expenditure on equipment requires to be curtailed and this can be done without sacrificing efficiency or even with increase in efficiency if a system of collective co-operative units be adopted. Some of the benefits of such a system are that the individuals remain free in their pursuits independent in their efforts and yet entitled to the guidance, help and lift by his fellow practitioners. There will remain the opportunity for the intellect to flourish and for the intellectual osmosis to flow.

I give this suggestion for what it is worth and I wish that we live like students, keep abreast with the recent advances and follow the old advice.

"Be not the first by whom the new is tried,"
"Nor yet the last to put the old aside."

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The following resolutions were passed at the Conference :

(1) Resolution condoling the death of—

1. Dr. Muktabai Job (Surat), 2. Dr. H. J. Chhatrapati (Junagadh), 3. Dr. K. N. Tankaria (Ahmedabad), 4. Dr. J. M. Kumbhani (Jetpur), 5. Dr. K. G. Dave (Morvi), 6. Dr. D. H. Desai (Umreth), and 7. Dr. Miss Gangubai Hadkar (Broach).

(2) E.S.I. Scheme—

This conference notes with satisfaction the decision of the E.S.I. Corporation to extend medical aid to the family members of the insured. This conference further requests the Government of Bombay to take into confidence the organised medical profession (Branches of I.M.A.) of the region wherever the E.S.I. Scheme is to be implemented in our State hereafter.

(3) This conference regrets that the status of the Health ministry has been reduced in rank by not including amongst the ministries of cabinet rank. Looking to the importance of the Union health ministry in co-ordinating the work of the health ministries of different states and to its international importance from the health point of view this conference requests that the Prime Minister would be pleased to resolve the Union health ministry to its previous status of cabinet rank. This conference further recommends to the parent Association to take suitable action as may be considered necessary.

(4) Whereas it has been the policy of various State Governments and Universities all over India to raise the standard of medical education in the country and to give facilities for post-graduate training in all branches of medicine, this conference notes with regret and disappointment the present action of the College of Physicians and Surgeons of Bombay for their decisions of closing their doors for various diploma for medical licentiates. This conference therefore urges upon the executives of the College of Physicians and Surgeons to reconsider their decision and give all facilities to the medical licentiates for the diploma courses hitherto enjoyed by them.

(5) There have been repeated complaints from official and non-official quarters regarding high cost of medical aid in the country which is to some extent due to the recently revised excise policy of the Government, regarding the spirituous medicinal preparations. This conference therefore urges on the State Government to exempt those spirituous medicinal preparations of daily use in medical practice from purview of high excise duty and thus help to reduce the day to day medicine cost to the public.

(6) This conference appeals to all members of medical profession eligible for membership of I.M.A. in Gujarat and Saurashtra to join Indian Medical Association, the only all India Professional Organisation.

(7) In view of the fact that the State Government is contemplating to establish regional bodies and councils to implement II Five Year Plan, this conference requests the Government to take organised medical profession (I.M.A.) into confidence wherever the health scheme and programmes are to be organised under the plan in the State of Bombay and to give representation to them on such councils.

(8) This conference urges the Government to take up the question of manufacture of essential surgical goods like Cat-gut and high quality Plaster of Paris and X-Ray films in our country.

BRANCH NOTES

ALLAHABAD BRANCH—At the general meeting of the sub-committee of the branch, held on 9-7-57, it was decided to run two free Influenza Clinics for the poor patients, one at 15 Nawab Yusuf Road (South Road) in the compound of Madan Mohan Eye Hospital, with Dr. M. M. De and Dr. K. P. Srivastava as attending physicians and the other at 15 Edmonstons Road with Dr. R. R. Koty, Dr. A. N. Duggal, Dr. J. C. Bass and Dr. S. K. Mukherjee as attending physicians.

BANGALORE BRANCH—On 29-3-57, Dr. D. P. Jayaram gave a lecture on "Skin Diseases in General Practice". Dr. V. R. Naidu presided.

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On 7-4-57, Maj. General Bhatia delivered a lecture on "History of Medicine with special respect to India". Sri A. B. Shetty, Health Minister of Mysore, presided.

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On 4-5-57, Dr. G. M. Mascarenhas spoke on 'Bronchial Carcinoma, Early Diagnosis and Treatment'. Dr. T. S. Jairam presided. An Extraordinary General Body Meeting was held to nominate names for the posts of President and Vice-Presidents of the General Office.

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On 23-5-57, Dr. Y. P. Vasudevan vividly described the Anti-T.B. work in Madras State.

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On 1-6-57, a Symposium on 'Influenza' was held under the presidentship of Dr. S. Seshagiri Rau. Drs. H. Krishna Rao, S. R. Bhombore, N. A. Iyengar and Dr. B. K. N. Rao took part.

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On 9-6-57, Dr. K. Vasudeva Rao, Chairman, Development Council for pharmaceuticals, Southern Zone discussed the ways and means of making pharmaceutical preparations cheap. Dr. M. Sivaram presided.

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On 29-6-57, an Extra-ordinary General Body Meeting was held to nominate names for the posts of president and vice-president of the State Branch.

Dr. Robinson (W.H.O. expert) gave a lecture on "Role of Medical Man in Public Health". Dr. C. V. Natarajan presided.

The following films were also shown.

1. Complications of Diabetes Mellitus.
2. Kwashiorkor Multiple Deficiency Syndrome in Children.

BELLARY BRANCH—A meeting of the branch was held on 13-7-57 with Dr. S. N. Gorur in the chair. Dr. Rama Rao demonstrated two cases (1) Pituitary Tumour, (2) Dislocation of Left Elbow Joint. Dr. K. Mariswamappa demonstrated the following cases (1) Tumour Liver, (2) Lump in Right Iliac Fossa, (3) Stone in Urinary Bladder in a girl of 4 years. Dr. Thakar Naick demonstrated a case of Chest Injury causing surgical emphysema and collapse of lung.

BENGAL PROVINCIAL BRANCH—A meeting of the Bengal Provincial Council was held on 27-4-57. One hundred and eight members were present. Dr. N. K. Munshi presided. The members condoled the death of (1) Dr. P. K. Roychaudhuri (Baruipur-Rajpur) and (2) Dr. P. Misra (Midnapore). The proceedings of the meeting held on 28-7-57 and the emergent meeting held on 15-9-57 were confirmed. The proceedings of the Working Committee meeting held on 23-7-57, 7-9-56; 17-11-56, 15-12-56, 16-1-57, 2-2-57, 15-2-57 and 7-3-57 were approved. Regarding election of the Working Committee it was decided to refer the matter to the Rules Revision Committee and to take the opinion of the Advocate General. Standing Committees were elected. The delegation to the Provincial Working Committee of the powers of the Bengal Provincial Council was deferred pending election of the Working Committee. A verbal report of the Central Working Committee Meeting at Patna held on 20-21 April was given by the hony. prov. secretary. Dr. S. K. Dutt, hony. prov. secretary and Dr. A. K. Paul, hony. treasurer were authorised to operate the Bengal Medical Relief Committee account. Regarding the prov. medical conference a resolution committee was formed.

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The Working Committee of the Bengal Provincial Branch, I.M.A., met on 10-4-57. Seventeen members were present. The members condoled the death of Dr. P. K. Roychowdhuri of Baruipur. The proceedings of the meeting held on 17-11-57 were confirmed. Formation of four new local branches were approved. It was decided to accept the invitation of New Barrackpore, Madhyamgram Branch to hold the next conference. It was decided to inform the Central Working Committee that the situation in West Bengal does not provide any scope to agree with the proposal of the chairman, Life Insurance Corporation to consider the cases of those who had substantial income. The reports of (1) II Five Year Plan and (2) Health Services Standing Committee were adopted. Dr. J. Majumdar was requested to attend the meetings of the Medical Relief Co-ordination Committee, if invited. Regarding closure of condensed M.B.B.S. Course, it was decided to approach the members of the Faculty and to make an enquiry from the Dean and the Vice-Chancellor of the Calcutta University.

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The 8th annual meeting of the Bengal Provincial Council, I.M.A., was held on 9-2-57. Seventy-nine members were present. The meeting condoled the death of Dr. M. N. Saha, late Nirode K. Munshi, father of Dr. N. K. Munshi, Dr. H. C. Mukherjee, Governor of West Bengal, Dr. P. K. Jana, Dr. M. N. Sarkar (Balurghat), Dr. D. M. Sen (Jalpaiguri), Dr. Sachin Bose (Calcutta), Dr. Premtosh Basu (Jagatballavpur) and Dr. S. Sen Gupta (Midnapore). The annual report for 1955-56, the audited accounts for 1955-56 were adopted. The audited accounts of the Bengal Medical Relief Committee for 1955-56 were adopted. The budget for 1956-57 were adopted. The result of election of the new office bearers for the ensuing year was declared. Dr. Nihar K. Munshi was elected the president, Dr. Salil Dutt, the hony. provincial secretary and Dr. Samar Roy Chaudhury, Dr. M. N. Das and Dr. H. S. Chakravarti, the hony. prov. joint secretaries. The hony. auditors and the hony. Legal Advisor were elected. The council urged upon the Government of West Bengal to take immediate steps to give effect to a proper Rural Health Scheme, arrived at by the representatives of the I.M.A., Bengal Branch and the representatives of the West Bengal Government at a meeting on 16-17 June 1957. A special committee was appointed to go into the proposed changes of rules.

BEZWADA MEDICAL ASSOCIATION—The Bezwada Medical Association and the Bezwada branch of I.M.A., during Krishna Pushkaram from June 19 to 30th, 1957, gave free medical service to the pilgrims and free cholera inoculations, manned 4 Bathing Ghat medical centres, ran a hospital at the association building, played host to the medical students who came from Guntur and Vizag for offering medical relief to the pilgrims, ran a health check-up centre at the exhibition grounds in co-operation with St. John Ambulance Association. The total number of check-ups was 868.

CALCUTTA BRANCH—The 4th ordinary meeting of the executive committee of the branch was held on 12-3-57. Twenty-eight members were present. Dr. A. N. Roy presided. The proceedings of the last meeting held on 12-2-57 were confirmed after corrections in the Scientific Sub-Committee's report and item IV. The statement of accounts for February 1957 was inspected and recorded. Regarding Dr. M. L. Biswas's enquiry about the eligibility of persons for admission as members to the branch whose addresses were given outside Calcutta, the secretary assured to make a statement. The election of representatives to the Bengal Provincial Council was deferred to the next meeting. The publication of the engagement diary for 1958 was entrusted to the secretariat. The house adjourned.

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The adjourned meeting of the executive committee of the branch was held on 19-3-57. Twenty-three members were present. Dr. H. K. Roy presided. Representatives to the Bengal Provincial Council of I.M.A. were elected. The house approved the report of the Ethical and Medico-Political sub-committee but decided not to give effect at present to the calling of a specialists' convention as suggested by the sub-committee. The secretary informed the house about the activities of the Public Health Section and referred to the convention held on small pox, also about the work of the Hospital Standardisation Sub-Committee of the Medical Relief Co-

ordination Committee. The correspondence regarding Bangur Hospital was referred back to the B. P. Branch.

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The 5th ordinary meeting of the executive committee of the branch was held on 9-4-57. Dr. B. P. Tribedi presided. Thirty-one members were present. The proceedings of the last meeting were approved after necessary corrections. The accounts for the month of March 1957 were inspected. Eighteen new members were admitted. Fifteen members resigned. Regarding schemes for Domiciliary Treatment of Tuberculosis suggested by the Directorate of Health Services, Government of West Bengal, the study group had been requested to expedite the matter. The secretary reported on the conference held with the health authorities of the Calcutta Corporation. Regarding meeting held with officials of I.M.A., the secretary gave a report, and attempts were being made to collect facts about the different hospitals of Calcutta. Regarding Medical Relief co-ordination committee, set up by the Government of West Bengal, it was decided to continue the negotiation and to consult the executive committee before any decision is taken. Regarding eligibility of membership of persons residing outside, it was admissible as per Bengal Provincial Rule 6-D(1). Regarding attachment of specialists in different hospitals, the house decided to forward the opinion of the branch based on the observations of the sub-committee to the Bengal Provincial Branch.

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An emergent meeting of the executive committee of the branch was held on 16-4-57. Dr. B. P. Tribedi presided. Twenty-six members were present. The situation arising out of the Calcutta Medical College Hospital strike, was discussed and the branch was prepared to help in the matter if asked for by all concerned.

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The 6th ordinary meeting of the executive committee of the Calcutta Branch was held on 14-5-57. Dr. B. P. Tribedi presided. Twenty-seven members were present. Sixteen new members were admitted. The report of the scientific sub-committee was approved. The president and 3 vice-presidents of I.M.A. for 1956-57 were nominated. The formation of study group to study the Ethical Rules suggested by the secretary was approved.

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An emergent meeting of the executive committee of the branch was held on 22-5-57. Twenty-four members were present. The letter of the secretary, West Bengal Council of Medical Registration to some of the doctors of the Medical College and their replies were considered and it was decided to send a deputation to the Registrar, West Bengal Medical Council of Registration to discuss the issues arising out of the letter.

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The 7th ordinary meeting of the executive committee was held on 11-6-57 with Dr. B. P. Tribedi in the chair. Twenty-four members were present. Five new members were admitted. The president and 5 vice-presidents of the branch for 1957-58 were nominated. Regarding nomination of a representative to the Scientific Advisory Board of the Association of Indian Pharmaceutical Manufacturers, the matter was referred to the Bengal Provincial Branch. A committee was formed to study the resolutions of the last Provincial Conference and to recommend measures of implementation. The secretary referred to the various press publications in respect to the medical profession and the hospitals, particularly the editorial published in the Times of India and suggested to call a special meeting to discuss the same.

COIMBATORE BRANCH—A meeting of the branch was held on 31-5-57, with Dr. T. V. Shivanandam in the chair. Ninety members were present. Nominations for the posts of president and vice-presidents of the Madras State Branch were made. Dr. Miss S. Padmavathy, Professor of Medicine, Lady Hardinge Medical College spoke on "Some Observations of types of Heart Diseases in India and their prevention and treatment."

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A meeting of the branch was held on 7-7-57. Dr. V. P. Vasudevan presided. Eighty-five members were present. Dr. I. G. K. Menon, Asst. Director, Pasteur Institute, Coonoor gave an analytical review of the recent epidemic of Influenza and post mortem findings of the fatal cases and also stressed the value of Iodine in the treatment of influenza.

DELHI STATE BRANCH—During May 1957, the following scientific lectures were held: (1) Fevers and skin diseases by Dr. P. N. Behl, (2) Some Perspectives in Venereal Diseases Control by R. B. Tampi, (3) Some Uncommon Fevers by Dr. M. L. Sharma, (4) Anaesthesia in Clinical Diagnosis by Dr. B. L. Bhattacharji, (5) Nervous Complications of Fevers in Children, (6) Experimental Induction of Congenital Defects by Dr. P. K. Duraiswamy, (7) Surgery of Portal Hypertension by Dr. R. N. Katariya. One new member was enlisted. The executive committee met 3 times in May 1957 and there was one sub-committee meeting for drafting resolutions on Employees State Insurance Scheme and the Contributory Health Schemes of the Central Government.

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During June 1957, Dr. Mrs. Karanjit Kochar spoke on "Rabies, its modern advances in treatment". A symposium was also held on Influenza (fever). Major M. S. Chadha spoke on Preventive Aspects, Major S. K. Chopra on Pathology and Bacteriology, Dr. M. L. Sehgal on Symptomatology and Dr. P. L. Khosla on Treatment. An extraordinary general meeting was held and the Delhi Administration was requested to implement the Contributory Health Scheme in co-operation with the Delhi Medical Association because of the association's previous experience in the matter. The introduction of panel system was also urged. Two Anti-Influenza Dispensaries were run for 2 weeks by the members and 3085 cases were treated.

INDORE BRANCH—An emergent meeting of the executive committee of the branch held on 6-7-57, reviewed the problem of Influenza epidemic in the city of Indore. It was felt that drugs should be distributed by a suitable sub-committee comprising of 3 or 4 leading practitioners of scientific medicine. It was decided also that darogas of the Corporation should collect the daily reports from the doctors every evening. The members of the profession decided to launch a well planned programme in the control of the disease. The dispensaries were asked to be kept open on Sundays also. The IMA organised 8 treatment centres in different parts of the city. Over 11,450 patients were treated at these centres and were given medicine free of cost. The medical students also gave ungrudging services in this matter.

JAGATDAL BRANCH—A meeting of the branch was held on 25-6-57 to condole the death of Dr. P. G. De, a member of the branch. Dr. A. K. Basu presided.

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A meeting of the branch was held on 23-7-57 with Dr. A. K. Basu in the chair to elect the president and 3 vice-presidents of the IMA.

JAMSHEDPUR BRANCH—A meeting of the branch was held on 14-7-57. Lt. Gen. K. S. Master spoke on Influenza Epidemic. Dr. S. Sen, Dr. F. J. Bilmoria and Dr. R. Prosad of Tata Main Hospital, Dr. K. L. Malhoutra, Asst. Medical Officer of Health and Dr. J. K. Ghosh, past president of the association took part in the discussion.

JAMTARA BRANCH—The monthly meeting of the branch was held on 30-7-57. Dr. G. S. P. Sinha presided. Twentyone members were present. Discussions were held regarding the diagnosis of Flu. Election of the president and vice-presidents was made. It was decided to represent to the authorities to convert the subsidised dispensary at Korogram into a full-fledged district board dispensary.

KARIMNAGAR BRANCH—A clinical meeting of the branch was held on 28-7-57 with Dr. Ghulam Nabi, Civil Surgeon in the chair. A symposium on influenza epidemic was opened by Dr. A. K. Chari, medical officer,

Sultanabad. Dr. Khaja Azizullah Sharief, Medical Officer, Huzurabad, Dr. K. N. Waghray, R.M.O., Dr. Gopal Reddy, Medical Officer, Sircilla and other medical officers of the district participated in it. Dr. Ghulam Nabi demonstrated a case of Myeloid Leukaemia and Influenzal Pneumonia with Haemoptysis. The medical officer, Peddapalli demonstrated a case of Mitral Stenosis developing congestive failure after influenza with Tuberculosis of the right lung.

MADRAS CITY BRANCH—The executive committee of the branch met on 1-6-57 with Dr. R. Sankaran in the chair. Eleven members were present. Before the meeting commenced, the members condoled the death of Dr. T. S. Shetty, an old member of the branch. Minutes of the executive committee meeting held on 11-5-57 were approved. Six new members were admitted. Regarding the building of the branch the matter was before the Government of Madras for formal sanction.

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A special general body meeting was held on 26-6-57. Dr. R. Sankaran presided. One president and two vice-presidents to the State Branch were nominated.

MADURA BRANCH—The monthly meeting of the branch was held with Dr. Balakrishnan in the chair. Condolence resolutions on the death of Dr. N. Kalyanasundaram and Dr. R. S. Krishnan were passed. A symposium on Head-Ache was introduced and Dr. G. Venkataswamy, Dr. M. D. Ananthachari, Dr. C. Kameswaran took part in it.

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The monthly meeting of the branch was held on 20-7-57. Dr. K. Balakrishnam presided. Dr. R. S. Padaki spoke on the Eastern Psychology, written and practised thousand years ahead of the Western.

NELLORE BRANCH—The monthly meeting of the branch was held on 4-8-57 at the Buchireddypalem, a muffasil place in the district. Dr. Balkrishna Reddy of Guntur General Hospital spoke on "Retention of Urine". After the lecture the election of the president and vice-presidents were conducted.

XXXIV ALL INDIA MEDICAL CONFERENCE. 1957. BANGALORE.

The 34th All India Medical Conference will be held on December 26-28, 1957 at Bangalore. A Reception Committee with Dr. Venkatasubba Rao as Chairman and Dr. M. Sivaram as organising secretary has been formed and the committee has already started to function.

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Dr. D. P. Jayaram, Convener, Souvenir Committee of the 34th All India Medical Conference, has made the following announcement:

The XXXIV All India Medical Conference is to be held in the Medical College Campus, Bangalore on 26th, 27th and 28th December this year. Mysore is well known as the Model State of India and is considered to be a tourist's paradise. The State abounds not only in places of natural beauty, but also in historic and world famous temples, palaces, artistic monuments and industrial concerns of all kinds, that manufacture from soaps to aeroplanes. 1,500 or more delegates from all parts of India and some from abroad are expected. The salubrious climate of the place and numerous pleasure trips to places like Mysore City, Krishnaraja-Sagara (Brindavan Gardens), Ooty, Nandi Hills, Jog Falls, Sharavanabelagola, etc., render the Conference a must to every member of the Indian Medical Association, nay to every medical man in India.

A Souvenir is being published to commemorate the occasion. It will contain articles of lasting and general interest by eminent persons and include pictures of scenic beauty in Mysore State, many in colour. More than 3,000 copies will be distributed. As such it will be an unrivalled medium for advertisement. The Souvenir will be 10" x 7" in size. The advertisements will be printed on the best possible art paper. The rates will be as follows:

Position	Charges
Insets	Rs. 500/- each set
One full page—2 colour advertisement ...	Rs. 500/-
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Quarter page ordinary	Rs. 75/-
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Advertisers who also take stalls in the Exhibition will be allowed 10 per cent concession. Advertisement in colour will also be accepted at special rates which will be quoted on application. Four-colour pictures of Mysore scenes could be used by the advertisers as examples of perfection, just as their products are. Such pictures in colour will catch the eye of the readers.

Each advertiser will be entitled to a free copy of the Souvenir. Additional copies will be supplied at actual cost, provided orders are placed before 15th September 1957.

Advertisements will be allotted on strict priority. The Souvenir Committee's decision on all matters concerning the advertisement is final. The Committee reserves the right to accept or reject any advertisement. Applicants are requested to note their order of priority, so that if the first preference is not available, the next can be allotted.

The Souvenirs of the All India Medical Conference have always received whole-hearted support and co-operation of the manufacturers and dealers of products of interest to the Medical profession. It is hoped your full co-operation will be available this year also.

All matters concerning advertisements viz. format, blocks etc., should reach the undersigned not later than September 15, 1957. Advertisement charges shall be paid in advance and shall be sent by money order or crossed cheque to the Treasurer, XXXIV All India Medical Conference, Medical Association Building, Fort, Bangalore-2.

XXVII PUNJAB PROVINCIAL MEDICAL CONFERENCE. NAWANSHAHR-DOABA.

The 27th Punjab Provincial Medical Conference will be held at Nawanshahr-Doaba (Dist. Jullundur) in November, 1957. A scientific session and an exhibition of medical products and surgical appliances will be held. A Souvenir will also be published on the occasion. Health Week will be arranged before the commencement of the conference, to be of benefit to the general public.

Particulars regarding the exhibition and the Souvenir to be had from Capt. Purshottam Dev, Hony. General Secretary of the Conference, Nawanshahr-Doaba, Jullundur.

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Vitamin A is found in only a very few foods, of which the most common are eggs, milk and butter, and for that reason it is important to realise that their Vitamin A content is not constant, but depends on the diet of the hens and cows. Besides, these animal foods are expensive and beyond the reach of many. Therefore, Fitzgerald Moore, in a practical discussion of the whole problem, concludes that the only hope of a solution is to reinforce local vegetable oils and fats with Vitamin A concentrates. As is well known, the Food Fortification Sub-Committee of the Indian Council of Medical Research thought on the same lines, and recommended that 700 International Units of Vitamin A should be added to every ounce of Vanaspati. This recommendation was accepted by the Government and to Dalda we add 700 International Units of Vitamin A in addition to 56 International Units of Vitamin D.

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